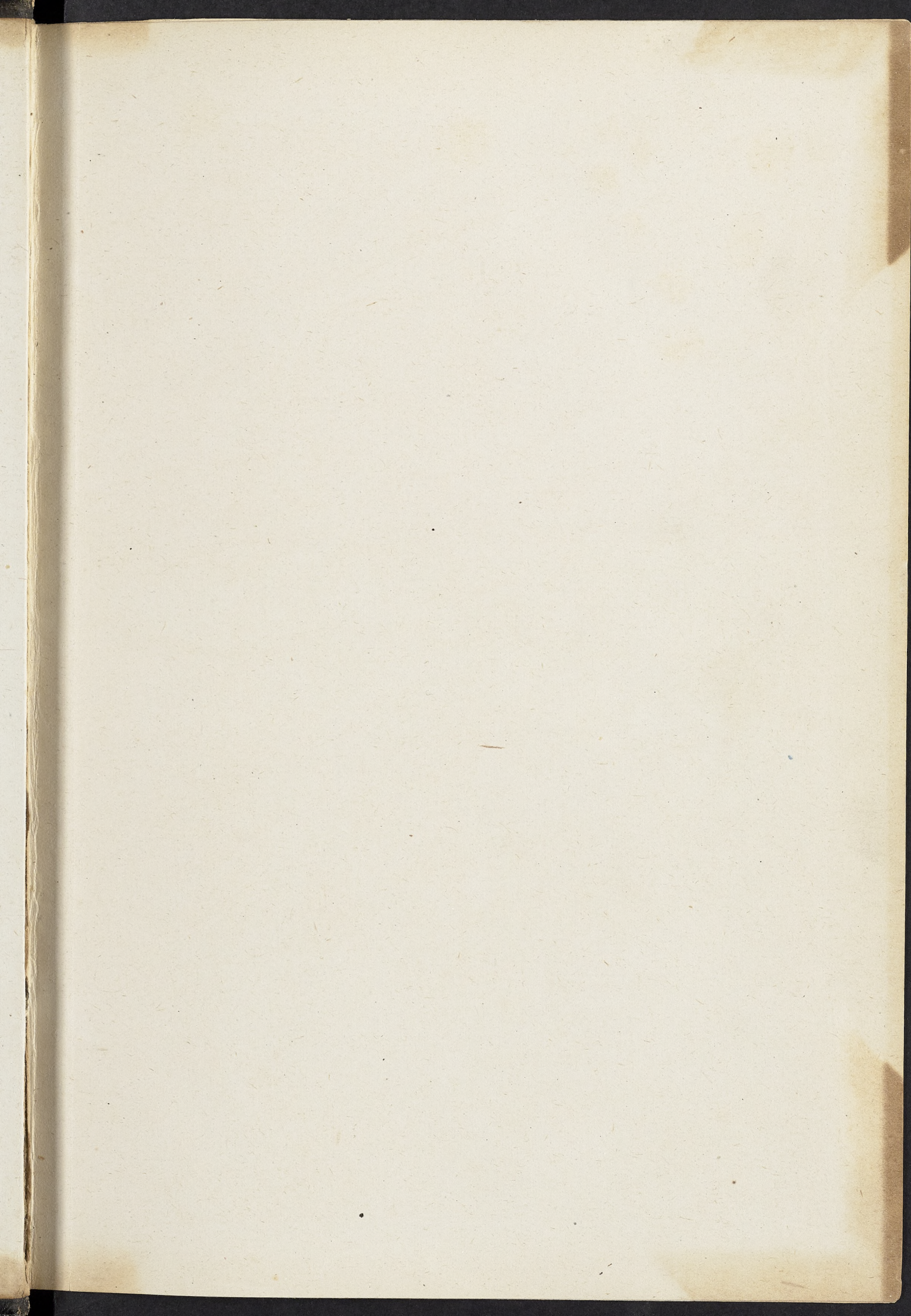




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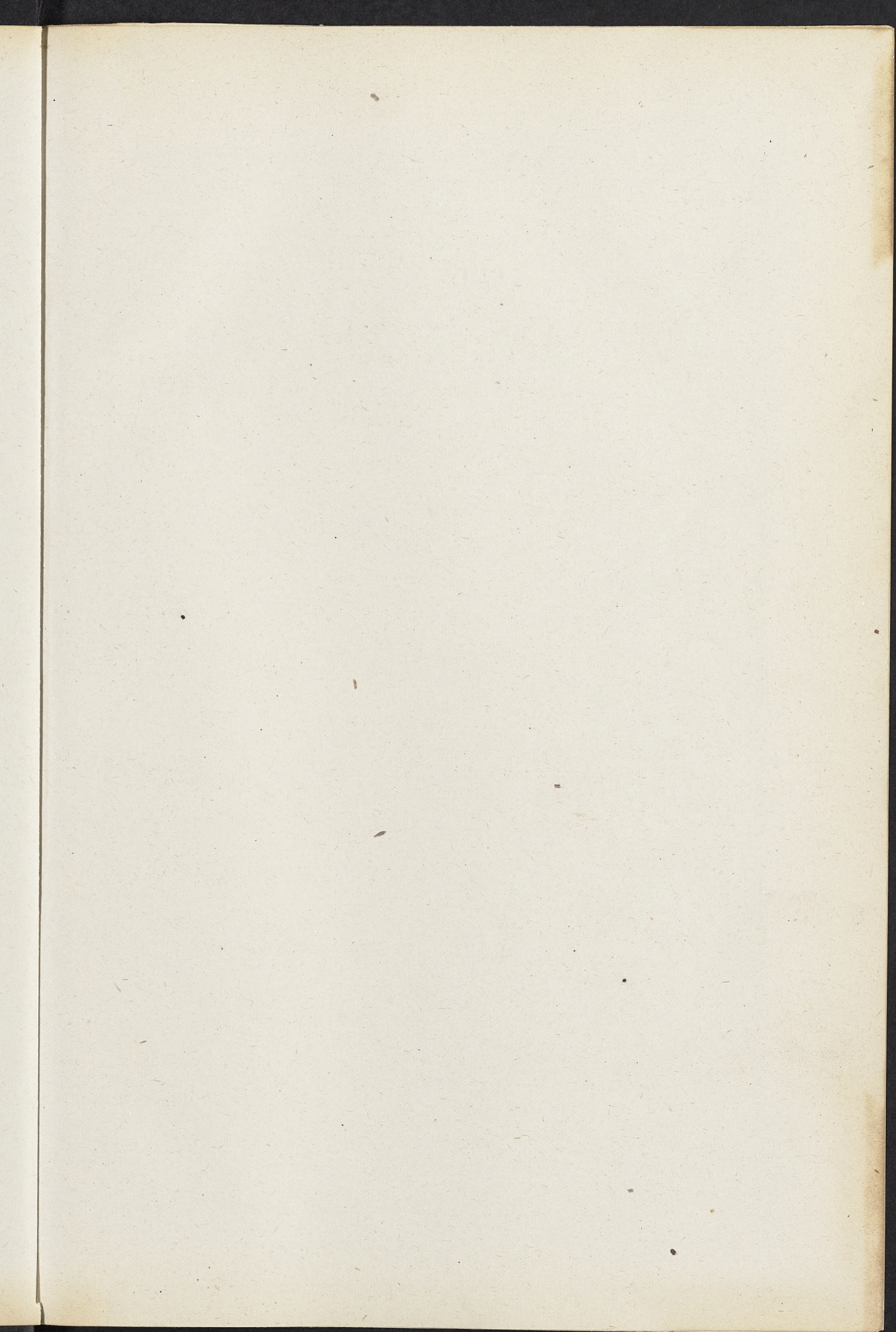


















No.

IN THE

# SUPREME COURT

OF THE

STATE OF CALIFORNIA.

CHARLES LUX ET AL.,

*Appellants,*

*vs.*

JAMES B. HAGGIN ET AL.,

*Respondents.*

TRANSCRIPT ON APPEAL.

Volume 3.

STETSON & HOUGHTON,

Attorneys for Appellants.

LOUIS T. HAGGIN,

Attorney for Respondents.

*Filed* ..... 1882.

*Clerk,*

*By* .....

*Deputy.*

DEFENDANTS' CASE.



SUPREME COURT

STATE OF CALIFORNIA

CHARLES L. ...

JAMES B. HARRIS

EXHIBIT OF ...

...

...

...



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*In the Superior Court of the County of Kern, State of  
California.*

1 CHARLES LUX AND AL. }  
v. }  
JAMES B. HAGGIN AND AL.

*Plaintiffs' Bill of Exceptions on Appeal,  
and also on Motion for a New Trial.*

2

VOLUME II.

MONDAY, May 2, '81.

JAMES DIXON,

A witness for defendants, being duly sworn, testified:

3 I first came to Kern County, in the vicinity of Bakersfield, in April, 1872. I first saw Kern River that time. I crossed the river above where the railroad bridge is now. I did not notice the amount of water there with a view of estimating the amount. I noticed there was quite a large stream in the river. After crossing the river I went to Bakersfield, and from there to the Ta-cuya Ranch. I returned to the neighborhood of the river again in 3 or 4 days, and went to Tracy's Crossing, on the river,

Q—Will you look at map 4, and see if you can designate it?



- 4 A—[Referring to map.] I think it is on the north-west quarter of Sec. 24, T. 30, S., R. 25 E.; but I would not be positive about that, but that is my recollection. That is what we call the new Tracy Crossing. I did not cross the river there; I attempted to cross; I got my horse mired, and came out and I went below until I struck another branch of the river, running south. From my knowledge of the country now, I think it was near the Alejandro place. I think that ranch is on Sec. 26, T. 30, S., R. 25 E. [referring to map 4.] I don't know that those branches of the river have any particular names, but according to the points
- 5 of the compass, I would call that the South Branch. I did not cross there. The water seemed to be fully as high as it was at Tracy's Crossing; it looked dangerous, and I did not attempt to cross it. I was deterred from crossing the river on account of the appearance of the water. There was a great deal of water there, and the current was very swift. I then went back to Bakersfield. I visited that country again in the neighborhood of the Alejandro Ranch, or Tracy's Crossing, in November, 1873. I crossed that South Branch of the river at that time; the same branch that I had turned back from when I was down on it before. I
- 6 could not say it was in the same place, because I was not acquainted with the country at that time; it was perfectly wild; I could not say whether it was the same point or not; it was in the vicinity of the Alejandro place. There was a great deal of water there, and a very swift current; it was deep enough to run into the buggy, it ran into my buggy. After crossing there I went to the old corral, section 29, the same township and range. I found a great deal of water running between this crossing and the old corral. The country seemed to have a number of small
- 7 channels there which ran south. I walked over a large portion of it with my gun, shooting ducks. Those channels were all running south, running towards the lakes. I camped at the old corral for the night. The next day I crossed another branch of Kern River, and went north to section 20, the present location of the Buena Vista Ranch; I know what branch that was now, by this map.

It was a branch, represented on that map north of this south branch, running through Sec. 29, T. 30, R. 25 E. I found water there. The stream was wide but shallow, and easily crossed. I only remember it was



- 8 not deep. I got there at night, and it looked like a formidable stream; and it was dark. It was quite wide at that point; perhaps 300 feet wide. I waited until morning, and crossed it without any difficulty. I don't think the water was over a foot deep in it, in the deepest places. I then went directly north until I struck what is known as the Gage Slough, running through Sec. 20, in the same township. I found water in that slough; if it was running, it was a very slow current. In places it is very deep; I suppose it was 10 or 12 feet deep there. I have seen that place repeatedly since. I think it is the same depth now that it was then; and
- 9 it has pretty much the same appearance. I have been along the Gage Slough, north and south, east and west, or whatever direction it runs. It does not continue the same depth all of the way. It runs out into a swamp; no channel at all. The water that was in it then came from the river. It does not connect with it by any definite channel at all. It does not continue from the river in a deep slough. At the point I struck it, in Sec. 20, it has perpendicular banks. You cannot cross it with a horse or anything else. Deep holes. Following it east, I suppose, a quarter of a mile from the eastern boundary of the section, it flattens out into a
- 10 swamp on Sec. 21. There is no perceptible channel there at all on Sec. 21, until you get clear across the section. On the eastern boundary of the section, near the northeast corner, I put in a head gate. At that point it forms a channel again. There is no channel between the eastern boundary of Sec. 21 until you get within perhaps a quarter of a mile of the west boundary of Sec. 20. That is a swamp. I suppose the slough was 30 feet wide where I struck it. I suppose where it goes out of that section on the west side it is not more than 10 feet wide, and perhaps 2 feet deep at
- 11 the ten foot place. I didn't remain on Section 20 at the time I visited it. I simply went to see if the land would do to locate a ranch on, and went back to Bakersfield. I located a ranch there afterwards, and lived there since, on Sec. 20; and I have lived there ever since that time. I went back there again sometime during the winter of 1873 and 1874; no, it was in November, 1872, that I went to locate the ranch. The first time I saw the land in Sec. 20 was in November, 1872. I thought I had said 1872 all of the time. I meant 1872. After coming back to Bakersfield, I went back to that land again in the winter, some time the



12 same winter. At the time of going back to this land, I didn't cross those channels which I have described. I enclosed Sec. 20, the land I located, with a fence, and began to put in alfalfa and irrigated. I got the water from the slough that I have just described, known as Gage Slough. That was the first water I had on the ranch; the water of Kern River. I believe the water came out of Kern River.

Q—What did you do to get water?

A—I put in a head-gate on the N. E. corner of Sec. 21. The first step I took was to file a notice to appropriate the water. I then put in a head gate. I don't  
13 know whether I put in a head-gate before I commenced to build the ditch or not; it was all done about the same time I posted that notice.

Q—You say that you filed that notice?

[Question objected to as irrelevant and immaterial, and not the best evidence. Plaintiff also objects to any evidence as to the Gage Slough, as irrelevant and immaterial].

[Objections overruled. Plaintiffs except].

Plaintiffs move to strike out the statement made by witness: "I posted a notice of appropriation," on the  
14 ground that the notice itself would be the best evidence.

Mr. GARBER—We are going to prove the loss of the notice.

[The motion is denied, and the plaintiffs except.]

The WITNESS—I posted that notice at the point on what is known as Gage Slough, near the eastern boundary, Sec. 21, T. 30, S., R. 25, east. I don't know what became of that notice, the one that I nailed up. I suppose it was destroyed by the water. I have been where it was posted repeatedly, and it is not there.

The COURT—I understand this evidence is all given  
15 under exception?

Mr. HOUGHTON—Certainly.

The WITNESS—After posting that notice I went to work and built a ditch from that point to Sec. 21, at that time. My recollection is that I posted that notice in the spring of 1873, in May, I think, and I commenced to build a ditch at once, within a few days afterwards. I didn't allow any longer time to expire than it would take me to get teams ready to go to work. After commencing it I continued it until it was finished; built it at once; and I used the ditch up to the time I left the Buena Vista Ranch. That was in 1876,



- 16 I think, that I gave up the control of that ranch. I still lived there in the vicinity of the ranch; stayed most all my time at the house. While I lived there the water was still used from that ditch all the time, and up to the period I have just mentioned. I don't know the exact date I gave up control of the ranch. It was several years ago. I have been to the ranch frequently since I gave up the control. I suppose almost every week that I was in the county. I lived only a couple of miles from the ranch after I left it. That ditch has to my knowledge continued to be used since then, and the water taken
- 17 from the river. I used it also on my own ranch since I left there. The ranch that I am now speaking of was the homestead that I lived on, Sec. 12, T. 30 S., R. 24 E. The water has not been taken out at the same place all of the time; that is not at this point of filing, because I changed the location of the head-gate to a point on Sec. 23, I think, T. 30, R. 25 E. [Examines map No. 4.] Yes, I am correct in the statement. It was not on the same slough, it was on the north bank of Kern River, it was changed. The change was made in the fall of 1873. I had a survey made, I think, in November, 1873, and the
- 18 work began at once, and built it on this point on section 21, at which my former head gate was.

Plaintiff's counsel also interpose the objection that the plaintiff's claim in this case is founded upon the idea of riparian rights; and that as against riparian proprietors, appropriation is immaterial, irrelevant and incompetent; second, upon the ground that evidence of a diversion by a change of the head gate without any new notice, is immaterial, irrelevant and incompetent. Third, that the diversion of the water by any person other than the defendants in the case, is immaterial, irrelevant and incompetent. On these

19 three grounds plaintiff's counsel object.

The Court—I will let the testimony in under the exception.

[To which ruling the plaintiffs except.]

Mr. HAGGIN. Q—You said that in November, 1873, you changed your head gate from a point on the slough to the north bank of the river?

A—Yes, sir; on Section 23, as I have before stated, and we took water out of the river at that point. I built a ditch at that point in a north-westerly direction through the corner of Section 22, or through Sec-



20 tion 22; I don't remember the exact course, in the same township and range, and running west, on what I suppose to be the northern boundary of Section 22; then to a point in Section 21, at which I had my former head gate on the Gage slough; and there emptied into the ditch that I had built previously. I used the water through the ditch that I constructed in November, 1873, at the same place I have mentioned before on Section 20 and Section 12; and I have used it through that head gate, since that time. I have been in that neighborhood lately.

Q—Is the water still used there do you know?

21 A—I don't know that the head gate is used at this particular time. The water is, in the ditch on Section 20, I suppose it is. I saw water in the ditch in the year 1880; I could not give you the month. That ditch was 12 feet wide on the bottom. The head gate was 12 feet wide. It had sloping banks, and I suppose the top would be 16 feet wide. It was intended to carry water 2 or 2½ feet deep. It is the same depth now as it was when we constructed it in 1873. It is the same ditch it has been there ever since 1873, the head gate opened out into the ditch and into the river, and in the spring  
22 when the water was high it flowed directly into the ditch without any trouble. During the summer we had to build wing dams out into the river, and also to put in a dam in the South Fork of the river, which is a short distance above the head gate. I put in this dam on the South Fork, at the point where it leaves the North Branch of the river. I put the dam in first in the summer of 1873. The object of putting in the dam was to cause enough water to flow down through this Gage slough into the ditch. There was not water enough in the channel of the north branch of the river without that. At that time the bulk of the water  
23 then went through the south branch of the river until I would divert enough of it to make it flow into the North Branch. When we first put in that dam the water running in that North Branch, I could not estimate; it was a large stream of water, and it filled the channel pretty full.

Q—I am speaking of the northern branch?

A—I thought you asked me how much was running in the branch that I put the dam across.

Q—How much was running in the branch that you put the dam across?

A—I say there was a good stream of water. The



24 bulk of the water that was running down this river was going in the south branch, where I put the dam in. There was some running in the north branch; not enough to fill it; not enough to give me plenty of water in the ditch. I could not state exactly the amount. There was not enough to fill my ditch to keep it full. I have frequently been along on the points of the country between the head of that ditch and where the north branch of Kern River empties into Buena Vista Slough.

Q—Was there enough water at that time to run down Buena Vista Slough, do you think, from where you  
25 turned the water into your canal, or from the point where the south branch diverges from the north, at this particular time I am speaking of?

A—At the lowest stage when I was turning the water off?

Q—Yes; when you turned the water off.

A—I hardly think so; I could not say positively, because I did not follow it down to see; but the head of water in the north channel was small. I do not know whether it would flow to the slough or not. It was a very small amount of water, though, and that is a very sandy channel.

26 Q—Do you know which way the water of that river ran after passing at this point that you speak of in its natural flow through both channels beyond the point of separation?

A—The direction of the north channel, I think, is south of west.

Q—I am not speaking of the direction but where the water went to.

A—It went into Buena Vista Slough; I could not say that I was ever right at the mouth at the time that the water was running out of this north branch. From  
27 my knowledge of the country I can say that the water would flow and I have seen it flowing into the lakes from these channels until the lakes were full enough to make it go the other way. I have seen it flowing both ways.

Q—After the lakes were filled up you say the water would flow the other way?

A—That was always my impression of the country, that after the lakes were filled up it would flow northwest.

Q—That the water would first flow then, as I understand you to say, to fill the lakes, and after that flow northwest?



- 28 A—That is my belief. I have seen the water flowing in that direction from those streams. I know where Cole's Bridge is generally; I think it is the southern boundary of T. 30 S., R. 25 E. I think it is on Buena Vista Slough, near the boundary of that township. I have seen the water there at Cole's Bridge. I could not tell the time I first saw it. I have nothing to tell it by. I would not say that I had seen it before 1876, the winter of 1876. I know that I saw it in the winter of 1876; although I know I have seen it, I would not fix the date on which I have seen it, and I had seen it before that. I have hunted on it time and again; I don't know what date, though, or what month it was, I saw Buena Vista Slough, I think it was in December 1876, at Tracy's Crossing—not at the same Tracy's Crossing I spoke of before.

Mr. McALLISTER. We will call it the old Tracy Crossing.

The WITNESS. Tracy's Crossing, on Buena Vista Slough. There was some water there then.

Q—Was it running?

A—I don't know; I suppose it was; I don't recollect noticing much about it, except that I crossed it in a buggy. I know there was water there.

- 30 Q—Was it deep?

A—No, sir; it made no impression on me. I know I crossed it there. I next saw that slough on that same occasion, at Cole's Bridge. The water was running there—running into the lakes.

Q—There was a good head of water?

- A—Yes, sir; a big head of water. There was a very swift current right at the bridge—a swift current towards the Lake. I would like to say that there was an obstruction in the slough, and the current was very swift passing through under the bridge—the old bridge across the slough. There were men there trying to stop the water from going into the lake. I don't know who the men were. I know who they were working for, but I didn't know the men themselves. They said they were working for Mr. Souther. I stayed there a few minutes, and went on to the San Emidio Ranch; I returned in a short time—in a day or two perhaps, and passed by that place again. The water was not then running into the lakes; it had been stopped at the bridge. I did not see the water running in any direction there; it was standing. The water was standing at the bridge—no current. The water was standing on
- 31



32 one side against the embankment; some water on the inside. That is my recollection of it. The ditch of which I posted the notice has been known as the Joyce and Dixon, and the Joyce ditch, I believe. I gave it no name, but I heard it spoken of by that name; it really has no name that I know of; or had not when I located it; I saw that notice after posting it frequently, while I was at work; I don't know what became of it; I suppose it was destroyed by the weather.

Q—Do you know what that notice was, what its contents were?

A—Well, I think I know the substance of the notice.

33 Q—Did you take a copy of this notice to the recorder to have it recorded?

A—I did sir.

Q—At the time you posted?

A—Shortly after.

Q—How soon after?

A—I recorded it within the specified time; within the 10 days, I think it was. My impression is that I took it to the Recorder myself, but I would not swear to it. I might have handed it to some one. The paper that was taken to the Recorder was an exact copy of the notice. I made it.

34 Mr. GARBER—I offer the record.

Mr. HOUGHTON—The first objection I have to this is, the objection which has heretofore been made, that it is irrelevant and immaterial, for the reason that it cannot in any manner affect our rights as riparian owners.

The COURT—I understand all this testimony is in under exception in reference to this ditch.

Mr. HOUGHTON—Now, we make the further objection to the introduction of this record on the ground that the record of this notice has no validity, nor has the certified copy of it, for the reason that it has not been acknowledged.

35 Objection overruled. Plaintiffs except.

Q—I would like to ask you to look at this record, and see if it is a copy of the notice you say you posted? [Book of Water Rights of Kern Co., page 5, is shown to the witness].

A—Yes, sir; that is a copy of the notice I wrote. The notice is offered and read in evidence.



36

## NOTICE.

“ Notice is given, that the undersigned hereby appropriate to themselves, for the purpose of irrigating, certain lands in Township 30 south of range 25 east, and in Township 29 south of range 25 east, and for the further purpose of manufacturing and for floating lumber, the water of Kern River to the extent of twenty feet, flowing under a four-inch pressure; said water to be taken out of the present channel of Kern River, on Section 21, Township 30, south, range 25 east, by a ditch running westerly to the eastern boundary of Section 20, above township and range; thence south to the southeast corner of Section 20; thence directly west to Buena Vista Slough.  
 “ (Signed). “ E. V. JOYCE,  
 “ J. DIXON.

“ Dated May 25th, 1873.”

“ A full, true, and correct copy of the original, recorded at the request of J. S. Brittain, June 2nd, 1873, at five minutes past 8 o'clock, A. M.

“ A. A. BERMUDEZ, Recorder.”

38 The WITNESS. Mr. Joyce did not sign that notice. I signed it for him. I deemed that I had authority. I had no authority to sign that special paper. I was his general business agent here. His name is E. V. Joyce. I don't think I had any power of attorney from him.

Mr. HAGGIN. Q—Did you tell Mr. Joyce you had signed that paper for him?

A—Yes, sir.

Q—Did he approve of the act?

A—Yes, sir.

Q—Ratified it?

A—Yes, sir; approved of it.

Q—When?

39 A—The building of the ditch and the appropriation of the water, and the fact of my doing so was the result of a consultation with him as to what we should do on Sec. 20, about the business we should carry on. This was a part of the programme that I was expected to carry out. He did not request me to sign that particular paper. He requested me to take steps towards the appropriation of the water, and I did it for the benefit of both Mr. Joyce and myself. This Mr. Joyce I refer to is the Notary Public in San Francisco.

Mr. HOUGHTON. Q—This notice is recorded at the



40 request of J. S. Brittain. Are you not mistaken about recording it yourself, or handing it to the Recorder?

A—I believe now I was mistaken about it. There is very little doubt about it.

[The notice being read, plaintiff's counsel make the further objection to its introduction in evidence on the ground that it fails to comply with Sec. 1415 of the Civil Code; first, that it does not give the measurement of the water in inches; second, that it does not give the place of intended use; third, that it does not give the size at all of the flume, ditch, pipe, or aqueduct, through which it is intended to divert the water].

41 The objection is overruled and plaintiffs except.

The WITNESS—When I returned from San Emidio, at that time I crossed Cole's bridge and went east some distance, I could not exactly tell where, and then north, and crossed the south branch of Kern River again. Water was very deep; I considered it very dangerous crossing; the current was very swift.

Q—Whereabouts was that place? Was that the place that you referred to before?

A—I think it was; it was at the crossing; it was a noted crossing of that branch of the river. I don't know that it has any particular name. It was near  
42 the Alejandro place. My ranch is on Sec. 12, T. 30, S., R. 24 E. I have used water on my ranch from two other sources than through this Joyce ditch; I have used it through the James and Dixon Canal; that canal takes water from the Kern River. I could not tell on what section; it is near the head-gate of the Johnson Slough.

Q—Can you look at this map, and look about where it is?

A—I think I can. [Examining Map No. 4.] It is on Sec. 3, T. 30, R. 26. That is the point of diversion  
43 of the James and Dixon Canal from the river.

Q—When did you first know about that canal?

A—I posted a notice there. The first step taken towards making the canal was the posting of the notice of appropriation of water for that purpose. I posted that notice myself at the point at which the head-gate is put in the canal now; that is on Sec. 3, as I just repeated. After posting the notice, I had it recorded first, and put the men to work in the canal. I posted the notice in the latter part of April, 1873; I recorded the notice within the ten days prescribed by law, in the first part of May, 1873. I think it was posted on



44 the 29th day of April, and recorded six or seven days afterwards. That would bring it about the 4th or 5th of May. I saw the notice after I had nailed it up; it was posted in a conspicuous place, on a tree on the bank of the river, at the point at which I intended to divert the water.

Q—Do you remember the contents of the notice?

A—I remember the substance of it. I would like to make a correction as to the time I saw this work going on at Cole's bridge. I think I stated that it was in December, 1876. I say that it was in 1875.

45 Q—You stated that you had that notice recorded when you changed it?

A—Yes, sir; I had it recorded. I remember the substance of that notice. I think I could tell now by reading a copy of that notice, whether it was a correct copy or not. I don't think I could repeat it; I could tell the substance of it. What I mean by that is, some word might be left out, and I could not say unless it was an error in substance from what I intended to do in making this appropriation; if there was a difference in the intent of the appropriation, or an error of that kind, I might detect it. I signed this notice in person. I think Mr. Brittain signed this notice; I think I signed 46 it in person; I think I signed Isaac James' name to it; Mr. James did not sign his own name. I won't be positive that Mr. Brittain signed it, but I think he did; I am not positive that he signed his own name, but if he did not I signed it for him, with his approbation. I signed that notice for Mr. James, with his consent. I spoke to him about forming the ditch; and I signed that with his approbation and consent.

47 The same objection is made by plaintiff's counsel to the introduction of this notice in evidence as was made to the introduction of the notice of the Joyce & Dixon canal.

The objection is overruled, and the plaintiffs except.

Mr. HAGGIN. Q—Is this a copy of the notice [showing paper]?

A—That is the notice that I posted. I have not got the original.

Mr. HAGGIN—We offer the notice of appropriation in evidence.

Plaintiffs make the same objection to this notice that was made to the record of the notice of the Joyce and Dixon canal.



- 48 The objection is overruled and plaintiffs except.  
The notice was then read in evidence, which is as follows:

## NOTICE.

- “ Notice is hereby given that we, the undersigned,  
“ hereby claim and appropriate the waters of Kern  
“ River, flowing to the extent of 50 cubic feet, meas-  
“ ured under 4 inch pressure, said water to be used  
“ for irrigating purposes, manufacturing purposes and  
“ for floating lumber, and to be taken from the present  
49 “ channel of Kern River by a ditch at or near the point of  
“ posting this notice. Thence into an old natural chan-  
“ nel running in a S. Westerly direction emptying into  
“ Buena Vista Slough. Said ditch to be constructed  
“ of sufficient size to conduct the amount of water  
“ above specified.

“ Dated April 29, 1873.

(Signed)

“ JAMES DIXON,

“ J. S. BRITTAIN,

“ ISAAC JAMES.

- “ A full, true and correct copy of the original, re-  
“ corded at the request of J. Jackson, May 7th, 1873,  
50 “ at 9 o'clock A. M.

“ A. A. BERMUDEZ.

“ Recorded on pages 2 and 3 of Records of Water  
“ Rights, Kern County.”

Mr. HAGGIN—I will give here the record of that previous notice, record of the notice of the Joyce ditch which is on page 5, Book of Water rights, Kern County.

It is here admitted that this is the Record Book kept by the Recorder of Kern County.

- 51 Counsel for plaintiffs make the additional objection to the introduction of this testimony: 1st. That it fails to comply with Sec. 1415 of the Civil Code. In this: That there is no statement as to the number of inches of water appropriated. There is no statement contained in the notice as to how or through what size flume, ditch or pipe it is intended to appropriate the water; further, that there is no point of diversion mentioned in the notice whatever.

The COURT—Same ruling.

Plaintiffs except.

The WITNESS—After posting and recording that notice I constructed the ditch. I don't know the date



52 I began it. It was in June, some time before the expiration of the 60 days after posting the notice. I am positive that I commenced within 60 days, and we prosecuted the work until it was completed.

We constructed the ditch from the point of diversion to the slough: from the banks of the river into what is known as Johnson's Slough. That slough runs through the place where it was proposed to use the water. The water was intended to be used on land that was in the possession of Mr. James, or under his control, lying in that township, from the point of diversion to the western boundary of T. 30, S., R. 25, E. We commenced the construction from the head, or point of posting this notice on the river, and continued work until we reached the slough, and after it was completed to the slough the water was turned into the slough through the canal. I don't know the exact date it was turned in. I don't know the date at which the ditch was completed. It was a very heavy piece of work there, to cut down from the river to the slough. I don't think the water was turned in there before the spring. Water came down in 1874. The work was done in the summer of 1873; but perhaps the water did not go through the gate before the spring of 1874, though I would not fix it. I think it was turned in in 1874, about the time that the water would come down the river in sufficient quantity; probably some time between March and June. We generally have some high water in June. I didn't use it myself to irrigate any land in the spring of 1874. I don't know whether others did or not. Others were using the water; had a right in the same slough or ditch besides ourselves. Whether they used the water or not I cannot say. It is just impossible for me to fix the date when the water was first turned in through the head of this canal into the slough. I think it was in the spring of 1874, but that is as near as I can state. I do that from my recollection of the amount of work that was done and that would be required to turn the water in. I don't remember the dates at all; it is so far back. I think it was turned in as soon as the weir was completed; but I won't say positively that it was done immediately, because there might not have been sufficient water right there to turn it in.

Q—Do you know whether it was turned in before the first of May, 1874?

A—I would not like to swear to that date; I think it



56 was; I would not like to swear positively that it was, but that is my impression. That ditch, from the river to the slough, is 40 feet wide on the bottom. The cut there is very deep; I think it is from 4 to 6 feet. After the water was turned into the slough, it continued to flow from the river as long as the headgate was up; it does not return back to the river from the slough; there is a point that it would--a part of it has gone back; but we filed on the channel as a ditch, and of course we fixed that point, and made a levee across that point, making a bank to the slough, that we filed on as a ditch.

57 Q—And the water you turned into that ditch, and through the ditch into the slough, never got back into the river again?

A—No, sir; there were times when it would break, and has broken this dam; but we always fixed it up immediately; it was a part of the bank of our ditch, and when that washed away, the water would flow into the river again until we could fix it up. That water was used for irrigating purposes. The only place that I ever used it myself was on Section 12. I used it myself on Section 12. I have also used water on that section from the Pioneer Canal. That takes the water from Kern River. I can only locate 58 the point by the position of the county bridge across the river; it is from a point just above the county bridge, and I believe on section 16; I can tell by looking on the map.

[After examining map 4.]

59 It is on Section 36, T. 29 S., R. 26 E. I see no section mark here; I judge it is 36; it was just above the bridge; I would not swear to the section; it is on the north bank of the river. The name of the bridge is the "County Bridge," or the old "Pioneer Bridge," and it has a weir under it. The first I knew of that ditch was in 1873; I think it was in the spring that they were working on it. The first work I saw on it—my first knowledge of the ditch, to see and notice its position there, was when I went up there to post a notice of the James and Dixon claim. I found that they had posted a notice for a similar ditch, the party taking out of the Pioneer Canal. I think that notice was posted near the point of the present head-gate of the ditch, and that it was posted in a conspicuous place. When I went to post the James and Dixon notice, I heard that there was a ditch company ahead of me; then I went to look for it, and found this notice.



60 Q—You saw the notice posted. Do you remember the contents of that notice?

A—Yes, sir. I think I remember the substance of it. That was posted at the head-gate of the present canal. The country was unsurveyed then, I knew of no section corner, or anything of that kind. I think it was just where the head-gate is now of the Pioneer Canal. I cannot say that I saw any notice there more than once. I went to see it for a special purpose and I saw it. But I don't remember having seen it again. I don't know what became of that notice. I recollect the general features of the notice. We had a prior right to the water, and of course I noticed to see how much they had filed on; what their proportion amounted to. I have not seen that notice since. I don't think I have ever seen it since. I have only seen it once. I was there just long enough to read it over, and I remember the substance of the claim, I think. I don't remember all of the names that were signed to it. There was a large number of names on it. I remember some, but not all. I will call out all that I remember. D. K. Said; Groshong, I don't know his initials; George W. Darden, I believe his name is; Mrs. Said. I don't remember any others. I don't remember how many names there were. It was not a material matter to me. I think I remember the width of the canal as stated in the notice, I think it was thirty feet on the bottom. I don't remember the land that was given in that notice upon which the water was to be used, or whether there were sections described in it. I don't remember whether it contained the section or not. I remember the course that the ditch was to pursue, and I saw the course that it did pursue, on the work. The description of the land in the notice I don't remember, whether it was in sections or not. I know it was to run in a westerly direction, along a dry channel and that is all that I remember. I don't remember sections at all. I don't know the description of the land by sections. I know the course that the ditch was to pursue, and I would like to state that I know that anyway, now, from having seen the ditch running with water and I know the general description in the notice of appropriation, I don't know whether it was in sections or whether certain sections of land were mentioned to be irrigated from the ditch or not.

63 Mr. HAGGIN—We propose to show this record to the witness, to see whether he can state whether it is a copy.



- 64 Plaintiffs make the same objections that they made to the notice of the Joyce & Dixon Canal, when shown to the witness.

The objection is over-ruled; plaintiffs except.

Mr. HAGGIN. Q—Is that a copy of this you saw posted? [showing record].

A—That is a copy of the notice that I saw.

Mr. HOUGHTON—Did you see either of these parties sign that notice?

A—I did not.

Q—Did you know as a fact whether any of them did sign it or not?

- 65 A—If I have to see them sign it to know it, I don't. I believe they signed it, but I didn't see any of them sign it.

Mr. HAGGIN—We offer this notice in evidence.

Mr. HOUGHTON—Then we renew the objections we have heretofore made to the other notices, and the further objection that they do not present any proof that this notice was signed by any one.

Objection overruled; plaintiffs except.

The notice was then read in evidence.

“April 26, 1873. NOTICE (Duplicate).

- 66 “We, the undersigned, claim a water right to be  
 “taken out of Kern River, at this point on Section 1,  
 “Range 26 east, Township 30 south, on the north side  
 “of the river. Said claim to consist of 50 feet of  
 “water flowing under a 4-inch pressure and to run in  
 “a ditch or canal, that shall be 30 feet wide on the  
 “bottom, and an average depth of two feet; said canal  
 “to be carried in a westerly direction, through ranges  
 “26, 25 and 24, and in a channel already staked out in  
 “a dry slough; following the course of said slough,  
 “until the bed of a large sand slough is reached.  
 “Thence in a westerly direction along the most avail-  
 67 “able land for the purpose, until the Kern or Goose  
 “Lake Slough is reached. We claim this right for  
 “irrigating, manufacturing and other purposes, with  
 “all of the rights and privileges thereunto belonging.

Signe d,

URIAH GROSHUNG,  
 ROBERT TRUIN,  
 B. K. SAID,  
 THOMAS HAYDEN,  
 MRS. JANE SAID,  
 G. W. DARDEN,  
 J. C. WESTFALL,  
 L. H. SILLIMAN,  
 JAMES HAWKINSON,



- 68 "A full, true and correct copy recorded at the request of R. Truin, May 16th, 1873, at 9 o'clock A.M., by A. A. Bermudez, Recorder. Recorded on pages 3 and 4 of Book of Water Rights, Kern County."

I saw men at work on the Pioneer, but I cannot fix the date. It was after I saw the notices posted. I can only say this; it was to my interest that the proprietors of that water should lose their appropriation by non-fulfillment. I believe it was done within the proper time. I cannot give the date. I cannot state any date that they began to work. I don't know it except that I believe it was within 60 days of the notice. I believe it was done within 60 days after I ~~wrote~~ <sup>gave</sup> this notice. I would not swear to any date; it is too long for me to swear to any date. I have said all that I can say about it. I believe that it was within 60 days, but I would not swear to it, because I don't know the date. It is impossible for me to remember the date. I saw work going on in this ditch.

Q—You cannot specify exactly within what dates you saw it after this posting? Can you specify whether you saw it within 2, 3, 4, 5, 6 or 7 months, or any other length of time, or one or two years? Fix the earliest date that you can specify.

70 A—It is impossible for me to remember the date at this length of time. I believe —

Mr. HOUGHTON—Never mind what you believe.

A—Then I won't say positively that it was any specified month; I won't swear to that. I did see work going on there before the year was out. I know it was in the fall, sometime, of 1873, but I cannot state the date; that is, the work of constructing the Pioneer Ditch. I think I first used water from that ditch, as near as I can fix it, in 1876, but I won't be positive. I think it was the winter of 1876. I first knew of water being used from that ditch in the spring of 1874, during the spring months. I know the faces of those who were using that water, but it is hard to remember names. I think a Mr. Said used some water in the spring of 1876 on Section 34. I will look at the map and point it out there. Section 34 is one of the sections, and he had land in another Township. He had a pre-emption of Sec. 2, Township 30 South, Range 25 East. He has those two places. He had land in both these places and Section 34 also. I refer to Section 34, T. 29 S., R. 25 E. I don't think he used it on Section 34, but I think he



72 did on Section 2. It was Section 2 that I meant when I said that Mr. Said used the water; the one he had a pre-emption on. I think, also, Mr. Darden used water; but I don't know on what section he was. [After referring to map 4.] I don't believe I could point out the section. It was the Old Pioneer. I know the place when I see it, but I don't remember the number of the section. I own other land in that country, besides in Section 12. I own Section 13, right south. I had land on the south side of the river. [Referring to map 4.] I owned the east half of Section 2, T. 31, R. 26. Section 13 was on the north side of the

73 river. I also owned that. Section 2 is not on what is known as New River. It was on Old River. I think I owned that land in 1874. I knew that land as early as 1873; in the spring I had passed over it and seen it. I crossed Old River in that neighborhood. I don't know the crossing, but it was near Section 2. It was in the spring, and there was a pretty large stream of water in the river. I think the channel was 60 or 70 feet wide. I don't remember the depth. There was a large head of water in it; perhaps 2 or 3 feet of water; I could not tell the amount. I don't remember going in the neighborhood of Section 2, westward from Section 2, at all. I may have gone. I traveled over that country, but I don't remember any particular time that I went west from there.

74 I know the Buena Vista Canal; it is in that vicinity. It is a channel appropriated. I am speaking of the time in 1873, that I was camping through that country there, with sheep. At the point I saw the Buena Vista Canal it was not a ditch; it was a channel that the water had been turned into for irrigating purposes. There was water in it when I saw it, at times a great deal of water, enough to overflow its banks. The parties were using it. I know particularly of a man named Barnes, who was using the water at that time, and I think P. O'Hara. I can only approximately designate the place where they were using the water. Mr. Barnes, I think, lived on Section 26, T. 30, R. 22 E. I cannot fix the place where O'Hara lived. I know where he lived, but I can't see it here. They were both using water at that time from the Buena Vista Canal Slough. We call that slough Buena Vista Ditch, I think. I don't remember any other ditches or canals in that neighborhood at that time, or prior to that—not in that immediate country. There



- 76 was Stine's ditch, I believed they called it, that was its existence at that time. I think on Old River; in 1873; it headed at the head of Old River; the Stine Ditch was taking out water in 1873; I don't know how much. The river was very full at times. They took it out through old river, and in the spring it was very full; in the latter months it was down to a small stream. I mean they used Old River as a ditch; they had a head-gate in and used it as a ditch. I never saw the head-gate; never went to it. I know Wible's Ditch and Railroad Ditch on the north side of the river, in the vicinity of the Pioneer Ditch. Know very little of the Wible
- 77 Ditch. I have seen it there; I don't even remember the date when I first saw them at work on it; but I could not tell the date. The first knowledge I had of the ditch, was seeing Mr. Wible at work on it. I saw the work going on. Never saw or read the notice. I posted the notice for the Railroad Ditch; the notice of the appropriation of the water. I think it was in the year 1876, but I won't be positive about the date of that.

Q—Was that the notice you posted?

[Paper shown witness.]

- A—That is the notice; that is not in my writing.
- 78 I have some writing on this, but the body of it is not in my writing. The three last signatures are in my handwriting, and the corrections.

Q—What corrections are those?

A—Something is rubbed out, and "one" substituted for it. 29 is erased, and 30 substituted for it. The figures "29 S. R.," it was originally written "27 E." This was substituted for the other. Those are the corrections in my own handwriting. Those corrections were made when I posted the notice.

Mr. HAGGIN. We offer this notice in evidence.

- 79 To Mr. HOUGHTON—The body of the notice is in my father's handwriting. I think the first four signatures are in his handwriting. [Examining the paper.] Yes, sir, they are.

Q—When were those pencil marks, or changes, made there on it?

A—They were made when I posted it. I am pretty sure of that. I will say that I am sure of it. I don't believe those pencil marks are fresh. I remember making the changes. I don't think they are new pencil marks.

Q—When did you see that next after posting it?



80 A—I don't remember ever seeing it again until now. No, sir, I don't recall, or remember of having seen it again.

Q—Havn't you seen this before it was shown to you on the witness stand, since posting?

A—I thought you meant after it was posted. I saw it not an hour ago, I suppose.

[The paper is shown to the Court.]

81 The WITNESS—I made those changes at the time I added the three last signatures, and that was at the time I posted the notice. I remember carrying that notice there, and adding these signatures to it, and making the changes. I have never seen the notice since, until it was handed to me a few minutes, I think after I left the stand; never from that time until then. All of these changes were on it when it was handed to me an hour ago.

The notice is offered in evidence by the defendants.

82 Plaintiffs object to its introduction on the ground that the notice does not appear to have been signed by the first four parties, and there appears to be no authority for the signing for the others, and on the further ground that they had not satisfactorily accounted for the changes in it.

Objection overruled plaintiffs except.

The notice is then read in evidence and marked defendant's Exhibit G.

#### “NOTICE.

83 “Notice is hereby given that we the undersigned hereby claim and appropriate of the flowing waters of Kern River, to be taken out of said River on or at the north bank of the same, on or near Section One, in Township 30, S., R. 26 East, at the point on the bank of said river where the dry channel of Goose Lake Slough leaves said river, and where this notice is posted, and as follows, to wit:

“I. The flowing waters of said river to the extent of 7,000 inches under a 4 inch pressure.

“II. That the said waters will be conducted along the course or channel of said Goose Lake Slough or near it, by a ditch or canal 30 feet wide and 2 feet deep, and empty into Goose Lake.

“III. That the purpose of taking out said water is to irrigate the lands along and near said slough, to raise



84 "grain, grasses, and for general agricultural purposes."

Kern County, Cal., August 7th, 1875.

(Signed.)

M. E. GWIN,  
T. W. GWIN,  
J. P. ROBERTSON,  
H. A. READING,  
J. DIXON,  
G. W. MORDECAI,  
C. A. READING."

85 Mr. HAGGIN—In what direction is that from the Pioneer Canal?

A—It is up the river from the Pioneer Canal—

Q—How far?

A—I suppose 200, 300 or 400 yards.

Q—200 or 300 yards by river from the Pioneer?

A—Yes, sir; I don't know the distance.

Mr. McALLISTER. About the point marked on that map, Goose Lake.

Mr. HAGGIN. In the neighborhood of that point.

Q—Was that ditch ever called by any other name?

86 A—It has no particular name. I called it the Railroad Ditch. It is also called Goose Lake Ditch, and I have, perhaps, heard it called the Dixon Ditch, but I don't remember any particular time. After posting that notice I began work on the ditch. I didn't record the notice. I don't think I had it recorded. I know it was recorded.

Mr. HAGGIN—There is no indorsement on this particular piece of paper—this original notice—of any record. It has always been customary that when a copy should be posted another copy would be recorded, so we offer now the record copy of that notice to show that it was recorded and the date of that record.

87 Plaintiffs make a preliminary objection to its introduction, that they have not accounted for the original.

The COURT—This is the original, isn't it?

Mr. HOUGHTON—No, sir; it is the copy posted. It was another one that was recorded.

Mr. GARBER—We offer this record to show that a copy of this paper was recorded. The record itself is proof.

Mr. HAGGIN—Have you any copy of that notice?

A—No, sir.

The objection is overruled, plaintiffs except. The record is then read in evidence, which is as follows:



88

## " NOTICE.

" Notice is hereby given that we, the undersigned,  
 " hereby claim and appropriate of the flowing waters of  
 " Kern river to be taken out of said river on or at the  
 " north bank of the same, on or near Section 1, in Town-  
 " ship 30 S., R. 26 east, at the point on the bank of said  
 " river where the dry channel of Goose Lake Slough  
 " leaves said river, and where this notice is posted,  
 " and as follows, to wit:

" I. The flowing waters of said river to the extent  
 " of 7,000 inches, under a 4-inch pressure.

89 " II. That the said water will be conducted along the  
 " course or channel of said Goose Lake Slough, or near  
 " it, by a ditch or canal thirty feet wide and two feet  
 " deep, and empty into Goose Lake.

" III. That the purpose of taking out said water is to  
 " irrigate the lands along and near said slough, to  
 " raise grain, grasses, and for general agricultural  
 " purposes.

" Kern County, Cal., August 7th, 1875.

" J. DIXON,

" M. E. GWIN,

" T. W. GWIN,

" J. P. ROBERTSON,

" G. W. MORDECAI,

" H. A. READING,

" C. A. READING.

90

" A full, true, and correct copy of the original re-  
 " corded at the request of J. P. Robertson, August 16,  
 " 1875, at 30 minutes before 4 o'clock P.M.

" F. W. CRAIG,

" Recorder.

" Recorded on pages 44 and 45 in Book of Water  
 " Rights of Kern County."

91 After posting that notice, we constructed a ditch  
 from the river at the point designated in the notice, to  
 Goose Lake Slough.

Mr. HOUGHTON. Our former objections apply to all  
 these notices.

The COURT. Yes, sir; certainly.

The WITNESS [continuing]: To a point in Goose  
 Lake Slough, where the water would run out on the  
 upper grade, to a point on the main channel of Goose  
 Lake Slough, where the water would run from the ditch  
 out on the bottom of this slough, and follow the course  
 of the slough down.



92 Mr. HAGGIN. Did that ditch commence in Goose Lake Slough?

A—I don't know that you would call it Goose Lake Slough. It is a low, flat place, where the water runs out of the river at high stages of water, and forms what is known as Goose Lake Slough. I don't know that it is designated on that map as Goose Lake Slough; this low, flat place, where I have seen the water running out of the river and forming Goose Lake Slough. I began work on the south side of the Goose Lake Canal, belonging to Mr. Haggin, and between that and the Pioneer Ditch. There was just enough  
 93 land between there to make the ditch in. I worked awhile on that, and there were objections made to it, as being injurious to the other ditches; and we changed the location perhaps 1 or 200 yards up the river to the point where the head gate now is on the railroad ditch; and we commenced to work there. I don't remember of having posted any notice of the change. We built a ditch from that point to the bottom—to the point in Goose Lake Slough, that would be on a proper grade with the bottom of our ditch. We commenced work in the second place as soon as we stopped on the former. We did very little work at the former place.  
 94 And we commenced on the former place shortly after posting the notice; within the time prescribed by law; I can't tell the date. It was within 60 days, I am positive; and we began the other work as soon as practicable. I can't tell whether it was two or three hours or a day, but as soon as it was practicable to make a change in the work, we made it. From the second point we prosecuted the work without stopping until it was completed to the channel of Goose Lake Slough, and then we ran the water in there. After the completion of the ditch, I won't say that I turned the water  
 95 in myself; I had this work done, and it was done under my direction. As soon as the ditch was completed I had the water turned in. I don't know the date. I don't think I was at the place when it was turned in. But I had it turned in as soon as it was completed. I had to have it examined by engineers, to see that it was what it professed to be; and, for that purpose, I had to have the water turned into the ditch. I don't know the date. I won't say when it was turned in. If I have to be certain, I would say it was in 1876; in the winter of 1876 that I first knew the water was turned into the canal. I think it was long before that; along when



96 there was plenty of water; say in January, February, or March, 1876. I think it was turned in long before that.

Cross-examination of

JAMES DIXON.

To Mr. HOUGHTON. I don't know how long it was after the head-gate was put into the railroad ditch before water was run in it. I don't pretend to remember when it was turned in. I was asked to fix some time when I knew the water to be in the ditch. I said the winter of 1876. I don't think it was in January or February; I won't say it was in February. My object in getting at this date was this: I don't pretend to remember the exact date, and when there was plenty of water in the river in the spring months, during the spring months, the water would flow through that ditch, and could not help but to flow through, and that was my object in fixing that date. But I don't know the date when the water was first turned into the ditch. I don't know who constructed the head-gate of that canal; but I think Mr. Wible did. The Gage Slough, to which I have referred in my testimony, is a channel which leaves the river south of where the present head-gate of the Joyce ditch is; as to how far south would be a mere guess; perhaps a quarter or half a mile south.

Q—What was the condition of the mouth of that channel when you first saw it, of the Gage Slough, in 1873?

A—I saw a portion of it, that I put my head-gate in; I didn't see the mouth of it until later in the summer; at that time there was a broad, sandy channel, and the water had almost ceased to flow through. What I mean is, the mouth of what is known as the Gage Slough, where it comes out. It continued in that kind of a channel for two hundred yards beyond that point. It could not be called a channel; it was a kind of swamp; a low, flat place, that the water had spread out over, and unless you confined the water and forced it along in the lowest place it would not stay there. You had to confine it and make it go on until the channel further along was better developed. The overflow that I speak of was very wide; I cannot tell you how wide; a part of the water would run back into the river again, and flow over the surface and find its way back again into



100 the river, at that time. I suppose it extended 400 or 500 yards before it came into the channel again. From that point down to where I dug out my ditch, it was a very slight channel, a little better than the place where I took it out; it was a very slight channel though, with scarcely any bank. I had to confine it all the way along to get it to flow into my head-gate on Section 21; where I put in my head-gate it widened out again, and made a large swamp in Section 21, and that continued down to near the east boundary of Section 20, and there formed a well defined channel.

Q—Did that well defined channel continue on down  
101 Buena Vista Slough?

A—Went all of the way through at that time; it is a better channel now than it was then. My recollection is that the Gage Slough does not empty into Buena Vista Slough, but empties into a large lake or pond; it is on the corner of Section 19.

Q—Can you tell me how far it is from Cole's bridge or dam?

A—No, sir [after referring to Map 4]; I don't think this map is correct. My recollection is that it is on Section 19; that it empties into a large pond. I think  
102 it is on the extreme point of Section 19; that is the southwest corner. I mistake; they separate before they get there, and the other branch of it I cannot remember exactly about; the other branch runs south. We changed our head-gate on the Gage Slough from the slough to the river in the fall of 1873, or early in 1874. I should say it was a mile and a quarter between the two points, from where the head-gate was on the slough to the point on the river where we moved it; that is, from its original position.

Q How much land did you irrigate from that ditch the first year it was taken out in 1873, the Dixon  
103 Ditch?

A—A very small quantity of crop. Irrigated a good deal of land. I had in 20 or 30 acres of alfalfa, and I would irrigate the land, and wet it up to prepare it for the next year. I cannot tell the number of acres I irrigated in 1874. Perhaps 100 acres. These things are mere guesses. In 1875 I irrigated a good deal of the section; got in nearly half the section at that time. I understand now you are asking me in regard to Section 20.

Q—No, sir; as to how much land was irrigated from that ditch which you took out first on Gage Slough.



104 A—About that time I also began irrigating the land on Section 12 from that ditch. That year I had about half of section in on 20, and perhaps 25 or 30 acres in on Section 12, and was irrigating both from that ditch. I don't know how much land was irrigated from that ditch in 1876. About that time my father came down and took charge of the ranch, and my business calls me away a good deal, and I had very little to do with it. I don't know how much land was irrigated in 1875.

Q—Now, you don't know up to this time?

A—No, sir; I would not say up to this time. The James & Dixon Ditch we constructed but a short distance from the river. I should say it was 300 yards, may be, and there it connected with the slough. It was 5 or 6 feet from the cut. I don't mean to say it would carry 5 or 6 feet of water, unless the water rose in the river to that height. That ditch would carry 5 feet of water usually, and was intended to carry that much the whole length of the ditch. I have seen it when I was pretty sure that the water was three feet deep. The work on that ditch was begun in 1873. I don't know when the head-gate was put into that canal. I cannot say whether the water was turned in before the head-gate was put in or not. I don't remember when the head-gate was put in. I did not put it in, and I don't remember. I don't remember that the head gate was put in on Christmas, 1874. I don't know how much land was irrigated from the James and Dixon in 1874. The ditch is a slough there. Other parties ran water into it, and into the Dixon Slough. There is another head-gate to it, and the waters mix in there, and go together in the slough.

Q—How far from the mouth where they took it from the river?

A—To where our ditch runs out into the slough, about the same distance.

107 Q—They connect though, about 300 yards from the river?

A—Yes, sir; I could not say what amount of land was irrigated from it; I believe all of those people along the Johnson Slough used water out of it—how much, I don't know. I don't know how much was irrigated in 1875 or '76; I used water out of it in 1876, but I could not tell how much of the land I used it on. I know it came very near overflowing my place; a large body of water was flowing through it, and I had difficulty in keeping it off; I think that was in the winter of



- 108 1876 or 1875, but I won't say positively which. I don't know how much land has been irrigated from the ditch since 1875-76. I don't know whether there is any water running through the Gage Slough now or not. I have not been to the mouth of it. I cannot fix the date that I last saw water running from the river into the Gage Slough, and Gage Slough has been shut up for some time; it has a dam across it. Mr. Gage put it there. I don't know, I accused him of doing it; my impression is that he did it all himself; I cannot fix the date of it; it was a good many years ago he put that dam across it. and he succeeded in keeping it there.
- 109 The water did not run through that slough till that dam was put across; I had to turn water through it in the summer of 1873; it would run through in high water; in extreme high water it used to go through there—some water. I don't know what year he put that dam up there.

Q—How far does the middle fork or channel of Kern River empty its waters into the Buena Vista Slough from this Cole's Bridge?

A—The middle fork—I don't know what you mean by that.

- 110 Q—The one you say was 300 or 400 feet wide, and the one you made a second crossing on from Cole's Bridge.

A—I don't know whether that map No. 4 is correct or not; I could not state. I think that perhaps a mile or may be three-quarters of a mile; I don't know the exact distance. I have been to the mouth of that river, and followed up from there to Cole's Bridge. I don't know how far it is; I didn't measure it. I have been up there very often; I don't know how many times. I cannot judge of the distance because I never measured it, but I think perhaps, it was three-quarters of a mile.

- 111 I don't know whether map 4 is correct or not. I cannot tell whether the southern channel is correctly delineated on map 4 or not. I only know the river by crossing it. The channel which I have referred to, leaves the line of the river above my head-gate—not very far, but I cannot say how far. The channel that I speak of, I don't know that it is that channel, or what channel it is; I only know it from land-marks. I don't know the sections that it runs through. I have never followed the south channel that leaves just above my head-gate, down to where it runs into Buena Vista Slough. The notice posted in connection with the Railroad



- 112 canal was, I should think 200 yards distant from the point where the present canal leaves the river. The head-gate is now on Section 1, I think, but I won't be positive. I had an impression that the ditch was on Section 36, but I see from this map 4, that it is not. But I don't know whether that map is correct or not. I don't know the section corners, and I won't say what section it is on. In connection with this location for the Railroad canal, my recollection is, that the excavation I made was about three-fourths of a mile long. It there runs into Goose Lake Slough. The canal known as the Wible canal, I think, is about as long as mine, and perhaps shorter and that runs into Goose Lake Slough. Goose Lake Canal is shorter than mine, and runs into a slough or channel, the same slough. I don't know how much land was irrigated by the Pioneer Canal in 1873. I don't know that any was irrigated. I don't know how many acres were irrigated in 1874, or in 1875, nor since. I don't know how far it is from the old Stine ditch, to the head gate, or to the head of the Old River. The water was turned into the Old River, and ran along that for a distance, and then taken out in the Stine ditch, but I don't know how far it ran in Old River.
- 114

Re-direct examination of

JAMES DIXON.

- 115 In 1874, I put in a dam at the mouth of the south branch of Kern River. It was made of brush and sand. It would wash out whenever there was high water came down. I never closed the channel completely. I only put an obstruction in it sufficient to make the water flow into the other channel my ditch was taken out of. I put a dam in, in 1874, in the same way. High water in the spring of 1874 would wash away the obstruction, and I would have to put it back in the summer again. In 1875, I put a dam in, in the same way. It was washed out in high water, and I would have to put it back every summer. Every summer that I planted there I had to do that up to 1876, or perhaps in 1875. It was when I gave the control of the ranch up to my father. Up to that year, I put in the obstructions every year. My father's name is R. L. Dixon.



116

F. P. MAY,

A witness for the defendant, being duly sworn, testified:

- To Mr. FLOURNOY—I reside about ten miles southwest of Bakersfield; I have resided in this county about nine years; I first came here in 1872, and in September and October, 1875, I went down to Buena Vista Slough and worked with Baker & Lundy in digging a grade for the county; we were taking care of the roadway on the east side of Buena Vista Slough; the work was done on Cole's Bridge, Cole's Ranch; that is south of the slough; the work consisted of scraping and building grades, building embankments and roadways; at that time my camp was on the west side of the slough, and they worked on the east side; I had occasion to cross the slough during those two months, to and from the work, three times a day; I crossed it north of and near Cole's Bridge; there was no water in the slough at the time I crossed it; in these two months it was dry land; from the bridge up to Buena Vista Lake there was water in it; I went in it a ways in a boat one Sunday, hunting, and found water all along; the point I crossed daily was just north of the bridge; there was no water in Kern River at that time at that point; I worked down there also in 1876 for Mr. Wible, scraping; the first work I saw was done at Cole's Bridge, at the upper camp, building these embankments, building the grade higher, and widening it under Mr. Wible's employment; I was there under Mr. Wible in November and December, 1876, and a little in January, 1877, I think; Mr. Wible never told me the object of building that levee; the effect of the construction of the levee by Mr. Wible was to hold the water from passing down to Buena Vista Lake—to keep the water out of Buena Vista Lake; at that time, when I worked there for Mr. Wible, there was some water running in the South Branch of Kern River; it was pretty near at a stand at Cole's Bridge; the lakes were pretty full of water; Buena Vista Lake was full of water at that time; that was in November and December, 1876, and probably January, 1877; at the time we quit work the head gates were not in to complete the grade; the levee was all completed except the head gates; I was not there when the head gate was put in.

No cross-examination.



120

WALTER JAMES,

A witness called for defendant, being duly sworn, testified as follows:

121

122

I reside in Kern County, in the vicinity of Bakersfield; I am a civil engineer and surveyor; first came to Kern County in the spring of 1871 I passed through to Bakersfield; I crossed the river on the ferry some place above where the county bridge is now constructed; I think that ferry was on Section 18, Township 29 south, range 28 east; that was the latter part of April or the first of May; there was then a fair stage of water in the river; it was about three hundred feet wide where we crossed—from four to six feet in depth; after reaching Bakersfield I traveled down across Kern Island; passed by the way of Barnes' settlement on Buena Vista Canal, Section 26, Township 30 south, range 26 east; on Buena Vista Canal, as it was called at that time, or Buena Vista Ditch; I crossed Old River at that time at a place called the Charlton Ford, near the north line of Section 20, Township 30 south, range 27 east; there was some water flowing in Old River at that time—I should say 150 feet wide, and between two and three feet in depth, running very rapidly; the Buena Vista Slough that I refer to is the slough formerly used by the Buena Vista Canal Company as a canal; there was a good deal of water in that slough at that time; it was spread out over the country at Barnes' Settlement about a quarter of a mile wide, and from one and a half to two feet deep; I went from there on to the margin of the swamp and overflowed land to a place about Section 2, Township 30 south, range 24 east.

Q—What did you find there?

123

A—I came there to the Buena Vista Slough, and we found the water flowing there; I am speaking about Section 2, Township 30 south, range 24 east; to get there we crossed New River; I cannot really say where; we traveled down New River several hours, hunting for a place to cross, and finally crossed it at a place that was not very good; I have never been able to find that place since; I think we crossed two channels; there was a great deal of water flowing in the first channel that we crossed; I don't remember how deep it was; I should say it was one hundred and fifty or two hundred feet wide and two or three feet deep; we had a wagon and some mounted men.



124 Q—How deep and wide was the second channel which you refer to?

A—I think it was very nearly the same as the first; I don't remember that we crossed any other channel.

Q—You say you went to Section 2, Township 30 South, Range 24 East; what did you find there?

A—There was water there running in the slough.

Q—What kind of a slough?

A—A narrow slough, and quite crooked; we undertook to follow the slough down, and found the water flowing out all over the country.

Q—Which way did you follow the slough?

125 A—We traveled, as near as I remember, northwesterly along the slough; I know where the body of swamp and overflowed land is which lies in District 121; the point that I speak of is a place in that body of land, on or about the section I have mentioned; where I first struck it; the portions of it where the water was not flowing were dry; the tules were mostly burned off; it was tule land.

Q—Then you followed the slough northward, you say?

A—Yes, sir.

Q—How far.

126 A—Perhaps half a mile; at the end of this half mile there was a change; we then came to the water that was spread out over the tule land; I cannot say how wide; we could not see across it; it was spread out all over the tules; from there we traveled around the margin of the water one or two miles.

Q—Did you find it in the same condition?

127 A—Yes, sir; the water was quite shallow, and in some places seemed to be running, and in other places seemed to be standing; I cannot tell you how wide it was spread out there at any particular place; we went from there over to a point of timbers on Goose Lake Slough; before going to the point of timbers we traveled along the margin of the water. In some places the water came clear out to the very margin of the swamp and overflowed lands. We were traveling along that body of swamp land. The point of timber is on Section 14, Township 29 South, Range 24 East. We found no water at point of timbers; we traveled then down Goose Lake Slough to Goose Lake, which was dry; there was no water at all in it; from Goose Lake we traveled around its south margin—at the dry bed of Goose Lake—and crossed to the high land on the west side of the swamp and overflowed land.



128 Q—In crossing over from Goose Lake to the high land on the west side of the swamp and overflowed land, did you find any channel?

A—No, sir, we did not see any channel at all; the country there was very dry; tules had been burned off, and no tules had started yet; we found no water there at all; we were looking for water, to find a place to camp in the swamp land; we passed clear across without seeing any indications of water or slough.

Q—You say you were looking there for water. Why?

A—According to some map which we had we expected to find sloughs passing between Goose Lake and  
129 the dry land on the other side.

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TUESDAY, May 3d, 1881.

Mr. GARBER—If your Honor please, I did not understand the testimony of Mr. Crocker, as I see it here. (Reading from transcript of yesterday's proceedings.)

Mr. McALLISTER says—"He didn't testify to the date  
130 "when he commenced pasturing his cattle there; we  
"simply desire to fix the date. It was a mere omission on our part.

"Mr. GARBER—All right.

"The COURT—Proceed.

"Mr. HOUGHTON—When did you commence pasturing your cattle on the land described in the  
"amended complaint?

"A—In 1870; at the time we bought the land and  
"came in possession of it."

Mr. GARBER—I move to strike out that answer all after the word 1870, as not responsive to the question.

Mr. McALLISTER—Read the question again.

131 [Mr. Garber reads.]

Mr. GARBER—I move to strike out "at the time we  
"bought the land and came in possession of it," as improper and not responsive to the question. The other answer is all that the Court gave him permission to answer.

Mr. McALLISTER—I suppose you can cross-examine on that, if you want to.

Mr. GARBER—I didn't understand him to say anything more than the date. I don't want to cross-examine him. We move to strike out all this but what the Court allowed them to ask. They asked leave to fix



132 the date. I see here there is an answer which is not responsive, and which is improper.

Mr. McALLISTER—Why is it improper in the case?

Mr. GARBER—Because the case was not opened up for anything except to fix the date. That is the only permission you asked. He goes further. It is improper for him to state his opinion about when he bought the land, or anything about that. That is already in evidence by documentary evidence; and about the possession, which is a conclusion of law. That is improper testimony, and I ask to have it out.

133 Mr. McALLISTER—We don't want that part of it out which shows that Mr. Crocker was speaking both for himself and the other plaintiffs.

Mr. GARBER—It reads: When did you commence pasturing your cattle, etc. [Reading again from transcript.] This goes beyond the permission given, and beyond the question asked, and beyond what is proper. Therefore, I ask to strike out all except the date; strike out what he said "at the time we bought the land and came in possession of it."

Mr. McALLISTER—We don't want any part of it stricken out which shows that Mr. Crocker was speaking for all of the plaintiffs.

134 Mr. GARBER—That has already been testified to over and over again.

The COURT—I understand, from the testimony for the plaintiffs in that respect, that Crocker, Miller & Lux were tenants in common of that land; the possession of one would be the possession of all.

Mr. McALLISTER—We only want it to appear that when he says, "we were pasturing cattle" at such a date, he was referring to the cattle of himself and the plaintiffs. If you strike out the word "we," it leaves it as though it was Crocker's individual cattle, and not the cattle of the plaintiffs.

135 Mr. GARBER—That word "we" don't refer to the cattle. It says, "at the time we bought the land."

The COURT—The motion is granted.

Mr. McALLISTER—I would like to know exactly what portion is stricken out.

Mr. GARBER—"At the time we bought the land, and "came in possession of it."

The COURT—That part. He first gives the date.

Mr. McALLISTER—I suppose we had better reserve an exception on the part of the plaintiffs.



136

Testimony of WALTER JAMES resumed.

[The witness is shown plaintiff's Maps 2 and 3, and asked to designate the point where he crossed the swamp land upon his trip of May, 1871.]

137 From Goose Lake, I think, we traveled in a westerly direction across Sections 23, 22 and 21, and Section 20, in Township 27 south, range 22 east; I do not wish to state that those were the sections through which we passed at that time; but going from Goose Lake in a westerly direction would have taken us through those sections as near as I now know; we passed about through that portion; the maps we had showing the slough, through the centre of the swamp land, and to which I referred, were some printed maps; I don't know that I can describe them; we were looking for a place to camp, and very anxious to find water at the time; this was in May, 1871; we were looking through the swamp for a place to camp.

Q—Did you find any indications whatever of a channel?

A—None that we noticed.

138 Q—I see on that map, No. 3, that there are several channels indicated through those sections that you have described. Were those, or any of the channels of that description, there at that time?

A—We saw no channels whatever.

Q—Did you see anything to indicate that there ever had been a channel there?

139 A—No, sir; my recollection is now that it was plain tule land from one side to the other; it was a very flat, even country; the tules had been burned off—the greater portion of them; I don't think there was any young growth of tules, it seemed to be very barren after crossing the swamp and reaching the west side of this body of swamp land; we then traveled along the margin of the tule land in the road that passed around to the west of Tulare Lake, going in a north-westerly direction and on the west side of the tule lands; I mean by the tule lands, this body of swamp and overflowed lands; we traveled about ten miles, I think, before finding water; we turned off the road and drove into the tules—into the margin of the tule land; we saw some cattle in that direction, and turned off with the expectation of finding water; I don't think we had seen any cattle in the swamp until we saw those when we turned off from the road; we came to some water in a hole and camped;



- 140 we had seen no channel between the point where we struck the west side of the swamp and the place where we found the water-hole, and no indication of water; this water-hole must have been in the vicinity of Section 15, Township 25 south, range 21 east; there was some water standing in that place, a pond of stagnant water, but not fit to drink; horses would not drink it; my recollection is that the cattle were very poor; seemed to be lacking for water; and there were some dead cattle about the water-holes; we did not see any cattle at any other point on the swamp during that trip; we remained there over night; the next day we went back
- 141 to the road again, leading around the west side of Tulare Lake; this water-hole might have been a quarter of a mile, perhaps half a mile from the road, after striking the road; we continued on north-westerly around the margin of the lake.

Q—How long before you struck the lake in this place?

- A—I don't think we struck the water until the evening of the next day; the lake was full of water; appeared to be full; from there we went to Summit Lake and continued right along north, and left Kern County; came back to Kern County again in October, 1871, and
- 142 crossed Kern River at the ford, north of Bakersfield, above the railroad bridge. The ford was on Section 18, Township 29 south, range 28 east; the river was low at the time I crossed; don't remember how wide the water was; didn't measure it; I should say three hundred feet, and from six inches to a foot deep; after crossing, I went to Bakersfield, and have remained in the vicinity of Bakersfield ever since; soon after reaching Bakersfield in October, 1871, I next saw Old River near its head; there was some water flowing down Old River at that time; I saw New River at that time, and below the junction of Old River, the water there was very low.

- 143 Q—Which of these branches was carrying the most water—New River or Old River?

A—I think there was about the same amount of water in each river; that was in October, 1871; my recollection is that Old River, where I saw it, was about fifty or sixty feet wide and a foot deep, more or less; the fall of Old River from its head is approximately seven feet per mile; I have not run levels on Old River from where it leaves New River, to the lake; the fall of New River varies at different points; the fall from where Old River divides from it to Buena Vista Slough, my recollection is, is from four to six feet per mile.



144 Mr. GARBER—Let me ask you. You say at the ford on the north channel in 1871 it was one hundred feet wide, and how deep?

Mr. McALLISTER—One foot.

The COURT—Three hundred feet wide, he said.

The WITNESS—I said it might have been three hundred feet wide; I made no measurement.

Mr. HAGGIN—How deep did you put it up there?

A—From six inches to a foot; I think that was my statement; it was a broad sheet of water.

Q—Where did you go after crossing Old River in October, 1871?

145 A—I crossed Old River frequently; I saw Old River at different times all through the years 1871 and 1872 from October; in January, 1872, I think, the water was very high in Old River; at the same time in New River it was also very high.

Q—Which carried the most water at that time?

A—New River; I cannot say whether it was January; might have been February; it might have been early in January, but there was high water; at that time Old River had three or four feet of depth in water and one hundred and fifty feet wide; I have also been engaged in farming in this county on Section 5 in Township 30 south, range 27 east; I went there in the winter of 1871; I was not living there—lived in Bakersfield; I have followed Old River down its natural course towards the lake; I first went down that way sometime in 1872; early in that year, I should think; I was at different points; I crossed Old River frequently at the point where the bridge is now—at what is called Charlton Crossing, near the south line of Section 20, Township 30 south, range 27 east; I think I crossed first at Charlton Crossing in the spring of 1871.

146 Q—You have already testified to that. After that when did you next cross it?

147 A—I could not state any date.

Q—Approximately, about when?

A—Sometime in the summer of 1872.

Q—In the spring of 1872?

A—Or spring; there was water when I crossed; I should say one hundred or one hundred and fifty feet wide—not very deep; at different times different depths; in the spring of 1872 I should think two or three feet in depth at the Charlton Crossing.

Q—Did you go southward in the general direction of Old River at all?



148 A—I was frequently down in that portion of the country.

Q—Did you go down across the lake at all?

A—Yes, sir, I was down on the margin of the overflowed land; I was first on the margin of the overflowed land in the early part of 1872 or the summer of 1872; the overflowed lands on the lakes, I mean; I was on Sections 22 and 23 and 21 in Township 31 south, range 26 east; there was water there; the water was spread out over the land; I was running some section lines, making surveys and looking at some land; the water was continuous out into the lake; I could not see  
149 across it; this was early in the summer of 1872; I think so—that is my recollection; I could not state any date when I was there again; I was there at different times in the fall of 1872.

Q—When were you next on the Buena Vista Slough after this trip that you speak of in 1871?

A—I think it was in 1874.

Q—Not until 1874?

A—I don't remember.

Q—Well, after 1872—prior to 1874—in the year 1873, were you down on the lakes Kern and Buena Vista?

150 A—Yes, sir; I was on the margin of the overflow at different points along Kern and Buena Vista Lakes; I was there at different times in 1873; the first time I was there, in 1873, the lakes were full of water outside of the margin of the tules; I think I can say about where the water line was in 1873.

(Witness examines Map No. 4 and states):

151 The water line was near the south line of Section 34, Township 31 south, range 27 east, near the south line of Section 33 of the same Township and range, to the south-west quarter of Section 32, the same Township; and across the lower portion of Section 31, Township 31 south, range 27 east—I should say near the north line of Section 31, across the lower portion of Section 30—near the south line of Section 30; a portion of Section 30 was in the water; Section 31 was all inside of the water line, entirely under water; the water was up over a portion of 30. In Township 31 south, range 26 east, the water line was up to the half section line of Section 26—the middle of the section—the line running east and west through Section 26; the water line ran up into Section 23—across the south-east corner of Section 23, Township 31 south, range 26 east; also,



152 through Section 22, going up to the half section line, running east and west; I cannot remember the position of the water on Section 21; but it was still up towards the north side of Section 20, and then going across the south-west quarter of Section 18, and the southern portion of Sections 13 and 14, Township 31 south, range 25 east; also, nearly all of Section 15, 9, and the west half of the west half of Section 4; the water line came to this place that I have described; it was one sheet of still water out into the lakes; my observations were taken at different times in 1873 when I had occasion to go in that vicinity.

153 Mr. HAGGIN—Say in the summer of 1873—in the fall of 1873—was the water up that high then?

A—Along about the line I have described during the summer of 1873—

Q—About that time you say you were on Buena Vista Slough, or at Buena Vista Slough, in 1874. What time in 1874?

A—In March. I first struck Buena Vista Slough at what is known as the Cole Bridge; I was south as far as the Baker Dam; the Baker Dam was about three-quarters of a mile towards the lake or south from Cole's Bridge—south of where Cole's Bridge is now.

154 Q—What was the condition of the water there, Mr. James?

A—The lakes were full at that time; the water was very deep in the slough; the Baker Dam was on the slough. At the Baker Dam the water was twelve to fourteen feet deep—about fourteen feet; at Cole's Bridge it was about six feet deep, and between the two points an average depth, I should think, of ten or twelve feet; no places less than six feet.

Q—Do you know where the middle channel, or middle branch of the fork of Kern River empties into Buena Vista Slough?

155 A—Yes, sir; I have been there.

Q—Do you know how deep the water was there at the mouth of that slough, or that channel, at that time—in March, 1874?

A—It was not very deep in the channel; I should say two feet to the best of my recollection; I don't think I measured the water in the river; we measured some distance from the river, a little ways towards Buena Vista Lake in the Slough, we measured the water, and my recollection is that it was three or four feet deep;



156 no, four feet, I think, was the shallowest place we found.

Q—The shallowest place, four feet?

A—Yes, sir.

Q—Between the mouth of the river and the Buena Vista Lake, you say?

A—Yes, sir.

Mr. GARBER—The mouth of the middle branch and the lake?

Mr. HAGGIN—You said at the mouth of the middle branch it was about two feet. Was that what you said?

Mr. HOUGHTON—No; he said the river was—

157 A—That was my estimate of the depth of the river?

The COURT—His testimony is that at the middle branch of the river, the water was about two feet deep.

Q—Was the slough at that point any deeper; or what was the condition there of the slough at the mouth?

A—We did not take any soundings in the slough at the mouth of the river, but the river was flowing right into the slough.

Q—At this time you state that the lakes were high. What was the condition of the water from Baker's Dam up to the mouth of this river?

158 A—The water was still; not flowing.

Q—Well, was there any point between Baker's Dam and the mouth of the Middle Fork that was more shallow than at the mouth, that you found?

A—No, sir; there was no place shallower than six feet, except this place right at the mouth of the river; the place immediately at the river, where we took the last sounding, was the shallowest place we found; that was right at the mouth of the river, and it was four feet, if I remember right; It was on the south side we took the soundings, down to the end of the still water.

159 Q—You say you took the soundings to the end of the still water—where was the end of the still water?

A—Where the water from the Middle Fork discharged into the slough.

Q—Which way was that water flowing?

A—That was flowing northward.

Q—How much of a current was flowing?

A—It flowed off slowly, steadily. There was no bridge then where Cole's bridge is now. A portion of the Baker dam was there then.

Mr. McALLISTER—A portion of Baker's Dam was there, not Cole's bridge, as I understand you?



160 A—No, sir; there was no levee where Cole's bridge is at that time; there is a levee there now; this levee is built from Buena Vista Slough, near the west line of Section Four, thence in a northwesterly direction a quarter of a mile, more or less, and intersects the township line between Townships 30 and 31 South; it runs thence along the township line east; I don't know exactly how far, perhaps a mile and a half.

[The witness points out the levee on the map.]

A mile and a quarter long, I think; it runs from the east bank of the slough, and there is a bridge on the line of this levee; there is also a levee running from this  
161 bridge on the west side to the high land.

[A map is produced which is entitled, "Plat showing Buena Vista Slough between the Kern Valley Water Company's headgate and Buena Vista Lake, Kern County, California." Offered in evidence, and marked Defendant's Map H.]

[Here insert said map.]

Mr. HOUGHTON—Did you make that map?

A—No, sir; I assisted in the surveys from which it was made; I think McMurdo made the map.

Mr. GABBER—We will prove that hereafter. We are not prepared to prove it now. We only want to use  
162 it as a diagram in the meantime.

The COURT—I understand that Map H is used simply as a diagram.

Q—Now, you said that in March, 1874, you were along Buena Vista Slough, between Baker's Dam and opposite the Middle Fork of New River. Were you on the slough at any other point? Where did you go from there?

A—We went from there to a point on Section 2, Township 30 South, Range 24 East; I think near the margin of the swamp and overflowed land; there was  
163 water there; the land at that point was overflowed; I could not see the extent of the overflow; could only see the water out in the tules; this was in March, 1874.

[Witness points out this section on Map H.]

Q—Did you go along that swamp land, anywhere else?

A—I don't think we did.

Q—When were you next on Buena Vista Slough?

A—I cannot remember all of the times that I was on the slough; I remember being on the slough in 1877; I was at this same point, that is, where Cole's bridge is now; that was in March, 1877; at that time the lakes



164 were full; had a great deal of water in them; I was there again in 1878, at the same place; the lakes were very low; the water was very high at the bridge in the slough, north of the bridge; south of the bridge the water was very low; lower than I had ever seen it.

Q—Why was the water higher at the north than at the south?

A—The levee was constructed across the slough, excluding the water from the lake; north of the levee the water seemed to be spread out all over the country; the levee held it up higher on the north than on the south side; there was a dam across the slough; it prevented 165 the water from flowing down the slough; it stopped the water entirely at that time from flowing into the lake; I was on the slough northward at that time from Cole's bridge, along the slough; I traveled down to the head of the Kern Valley Water Company's Canal; that is Wible's.

Mr. HAGGIN—In 1878—what time in 1878?

Mr. HOUGHTON—March, he says.

The WITNESS—I correct that—I say in the latter part of April, 1878; the water was very high in the slough at about Wible's headquarters; I don't think there was any water flowing in the slough beyond the head- 166 quarters, because the water was all flowing into the canal; the right bank of the canal is constructed across the slough, and intercepts all of the water flowing in the slough and takes it into the canal; I do not think there was any water on the north side of this right bank of the canal; I think there was four or four and a half feet of water in depth in the canal; I don't remember how wide the canal was there; I think we measured it, but I don't remember; I made a measurement of the quantity of water; I have not the notes of the measurement; I remember the quantity that I arrived at—that the canal was discharging about 1,200 cubic feet per sec- 167 ond; at that time I don't think I went further north than Wible's headquarters; I was on the slough again in July, 1879; I do not remember whether I was there again in 1878.

Q—What part of the slough were you on in July, 1879?

A—From Buena Vista Lake down to the head of the Kern Valley Water Co.'s Canal, Wible's Camp; there was very little water at any place; I could see a very little water running in some places on a portion of the slough from the Middle Fork.

Q—Whereabouts?



168 A—On a portion of the slough from the Middle Fork down to Wible's headquarters, from the Middle Fork of the river northward.

Q—Were you along Kern River much of the time in July, 1879?

A—In 1879 I was along the river a great deal.

Q—Was this the time that you say the water was running a little towards Wible's headquarters?

A—Yes, sir.

Q—Was there any water in the river at that time?

169 A—No, sir; there was only a little water running in places from one hole to another; I could see the water running; I am speaking now of the slough; there was no water in the river at that time; I might have been on the slough several times in 1879; I don't remember the next time that I saw water in the slough; I saw water in the slough when I was on it a short time ago; I was on the slough in July, 1879, from Buena Vista Lake to Wible's Camp; the dam at Cole's Bridge was there then—a dam of earth; I was on Buena Vista Slough again in April, 1881; I was from Cole's Bridge towards the north, or the mouth of the middle channel; there was water at Cole's Bridge running into Buena Vista Lake; that water came out of Kern River; I was from Cole's  
170 Bridge to the mouth of the Middle Fork of Kern River; there was no water in the Middle Fork of Kern River; I was at a point on the river where the water ceased flowing in the Middle Fork; this was in April, 1881; this point was near the line between Sections 27 and 28 in Township 30 south, range 25 east, north of the  $\frac{1}{4}$  post between those Sections.

Q—Were you at the point where the South Fork diverges, from where the two forks of the river diverge from the river, the main channel?

A—Yes, sir; I was further down along those channels.

171 Mr. HAGGIN—From any point up the river, or above where the Middle and South Forks separate, or right at that point where the Middle and South Forks separate, trace the course of the water as it was at that time, April, 1881. I want you to trace the way the water ran.

A—The river divides on Section 23 in Township 30 south, range 25 east; one branch goes southward, in a southwesterly direction, through Sections 26, 27, 34 and 33, and across the line of Section 4, crosses the township line, and discharges into the Buena Vista



172 Slough near the bridge; those four Sections are in Township 30 south, range 25 east, and the next one in Township 31 south, range 25 east; that is the South Fork.

Q—Well, where does the Middle Fork flow?

A—The other branch of the river flows through Sections 23, the south portion of 22, crossing the northwest quarter of Section 27, flowing thence southward, near the line between Sections 27 and 28, and into Section 35, thence southwesterly to a point near Cole's Bridge and there discharges into the slough; that map is correct (referring to Map H); it discharges in two  
173 channels.

Mr. HAGGIN—What becomes of that water then at the slough?

A—The greater portion of it flows into Buena Vista Lake; the other portion goes northward. The levee is still there, but a portion of it is carried away, and a portion remains.

Q—If that levee was not there, what would be the flow of the water there—if that levee had not been placed there?

A—If there were no obstructions there, the greater portion of the water would flow towards Buena Vista  
174 Lake.

Q—If that levee had never been put there, Mr. James, at all—no obstruction had ever been put there—what would have been the flow of the water at that point?

Mr. McALLISTER—Hadh't you better ask him whether he can tell that scientific question.

Mr. HAGGIN—(To the witness.) Have you examined the country around there?

A—Yes, sir; I have seen the levee and know the general condition of the country north and south of the levee; I have examined it; there is a difference in the  
175 elevation between the north and south side of the levee at Cole's Bridge; the cause of this difference is the filling up of the slough north of the bridge; this has been caused by the flow of water being stopped at that point; the deposit from these channels of the river has filled up the slough.

Q—Now I ask you, Mr. James, if that levee had not been placed there, or rather if the levee had never been placed there, what would have been the flow of the water?

Mr. HOUGHTON—One moment, if you please. I would



176 like to ask him a few preliminary questions, to ascertain whether he is an expert on the question; what he knows about it.

Q—Have you ever run levels around Buena Vista Slough?

A—Yes, sir.

Q—From what point?

A—From different points.

Q—Well, between what points?

A—I ran several levels along the east side of Buena Vista Slough at one time.

177 Mr. HAGGIN—I object, if your Honor please, to this line of examination. It is not now to ascertain whether he is an expert sufficient to answer these things. But asking him to go into a detailed examination of some particular survey or leveling that he has done, it makes no difference at what point; they can ask him as to his general knowledge or general capacity, and this will come on cross-examination.

Mr. HOUGHTON—They simply ask him the general question: Do you know about the country down there, generally? We have a right to know in this connection, we think, how he got the information. He says: “I have examined the country and know about it; know  
178 how it was leveled.” Now I ask him what the fact was. He, as an expert, can answer that question, whether he knows what the levels are; knows what they were before this took place, or whether he has run them.

The COURT—If you wish to examine this witness as to his qualifications, it seems to me general questions would be admissible. As I understand it, the question you put to him was, whether he had run levels along that slough; the witness answered that he had. Then I understand you, that the object of that was to ascertain whether he was an expert.

179 Mr. HOUGHTON—He said he had run levels, and we asked him where he ran them, and what was the result from that.

Mr. HAGGIN—It makes no difference what the result was.

The COURT—It seems to me that would properly come out on cross-examination.

Mr. HOUGHTON—I wish to put it in form, so that we can have the benefit of an exception.

Mr. HAGGIN—(Continuing.) Q—Now, Mr. James, if the levee had never been placed there, this accumulation of sand, you say, formed there by the levee,



180 what would have been the course of the water after reaching that point?

A—It would have flowed into Buena Vista Lake.

Q—At all times or conditions of the lake?

A—Until the lake would become filled up. After the lake was filled then it would flow the other way. I do not wish to state that any possible head of water that would come down the river would always necessarily flow that way. A large head of water would flow another direction.

Q—What do you mean by a large head of water?

A—Some water—

181 Q—(Interrupting.) I am speaking of the ordinary flow of the river.

A—The ordinary flow of the river, at ordinary stages of the water, it would flow towards Buena Vista Lake until the lake was full. In April, 1881, I was down as far as the Middle Fork of Kern River, and also a mile or two toward Buena Vista Lake from the bridge, that is the bridge at Cole's crossing.

Q—Describe the road coming from the East towards Buena Vista Slough at Wible's Camp?

182 A—The County Road runs between Sections 17 and 20, Township 30, Range 25, continuing on the same section line westward into Township 30, Range 24, between Sections 13 and 24, and there near the corner of Sections 13, 14, 23 and 24, it follows the levee a little north.

Q—What levee? Where does that levee begin?

A—I think the levee begins on the line between Sections 18 and 19, Township 30 South, Range 25 East. The county road follows the levee which diverges from that section line in Section 14, and crosses Buena Vista Slough not far from some place on the southwest corner of Section 14. After crossing Buena Vista Slough, it runs right along the levee, the right bank of the Kern Valley Water

183 Company's Canal some distance. I don't know how far.

Q—Then this levee that you speak of crosses the slough at the mouth of the canal, as you said before. Was there any opening in that levee in that slough at that place? Do you know?

A—There is not.

Q—I mean any opening in the bank of the levee right there across the slough. I am speaking of the levee just at the mouth of the canal, where the levee crosses the slough itself. Is there any opening through that levee in the slough?



184 A—There is not. I don't know how high that levee is above the bed of the slough at that point. It is approximately 16 or 18 feet. When I was there in April, 1881, there was a very little water in the slough south of the levee. There was some water flowing. It flowed into the Kern Valley Water Company's Canal.

Q—Was there any water on the north side of the levee in the slough?

A—I could not say. I don't think there was.

Q—Did you see any?

185 A—There might have been a little. I don't remember. I was last down on that body of swamp land north, of Wible's Camp, about from the 22d to the 24th of April, 1881. I first struck the body of swamp land at Goose Lake.

Q—For what purpose did you go there?

A—I went there to make an examination of the swamp and overflowed land. I made an examination of these lands.

Q—What was your object in making an observation of the swamp and overflowed lands?

186 A—To determine whether there was any water course running through it. I went there to hunt for channels; went there for the purpose of finding out whatever channels might be found, whether there were or were not channels.

Q—I will ask you to describe that trip that you took; and refer to the different points on those plaintiffs' maps numbers 2 and 3, and tell what you found. Starting out, show me on the map where you first struck the body of swamp land.

187 A—I first struck the body of swamp land near Goose Lake, at the south end of Goose Lake on Section 29, Township 27 South, Range 23 East; and then went around Goose Lake northwesterly along the margin of the swamp and overflowed land through Sections 20 and 19 in the same township; then Sections 13, 14, 10 and 3 in Township 27 South, Range 22 East; Sections 33, 28, 27, 22, 15 10 and 3 in Township 26 South, Range 22 East. I cannot say whereabouts on Section 3, but along the margin of the swamp and overflowed land.

Mr. HOUGHTON—I understand this line run along the margin all the way?

A—No, sir; it runs along the margin and crosses this point here. (Pointing on the map.)



188 Q—Crosses at one point and then it continues on the margin?

A—Yes, sir; we traveled then northward to the Tule House.

Q—Where is that situated on the map there?

A—On Section 32, Township 25 South; Range 22 East. I don't wish to state from my own knowledge that that was the position of that house.

Q—From Goose Lake along to the northwest corner of Section 3, in Township 27, Range 22, what was the appearance of the country?

189 A—We had a high sage brush country to the right and low tule lands on the left. There is a dim road running along there. We did not diverge from that road at all between those two points, I think followed it.

Q—Did you see any water channels at all?

A—None at all; no channel crossing the road.

Q—In going from the northwest corner of Section 3, northward to Section 10, Township 26 South, Range 22, we crossed a body of tule land. We crossed no channel in that body.

Q—Did you find any indication of a channel?

190 A—There are some islands or elevations in that portion of the swamp and overflowed land and low places passing between. These low places are of various widths, from 100 or 150 feet wide, a quarter of a mile.

Q—Could you find many of these low places through there?

A—I don't remember. There was nothing at the point we passed through to show a water channel through there. There was nothing to define the course where water had been flowing in any particular course; nothing whatever. From Section 10 to the Tule House is level tule land; no channel through it; some salt grass islands in the tule land and alkali spots.

191 Q—At the Tule House?

A—At the Tule House there was a slough.

Q—What sort of a slough?

A—Wide and deep; a well defined slough. I should say 100 feet wide and 10 to 12 feet deep.

Q—Did you go along that slough?

A—Yes, sir; we traveled down the slough in a northerly direction.

Q—Trace it on the map as well as you can?

A—Through Section 29, and through 20—

Q—(Interrupting.) On that same slough?



192 A—Yes, sir; nineteen. My recollection is that the slough terminated on about Section 20.

Q—You say it terminated about Section 20. How far from the Tule House was it that you followed it?

A—A distance of a mile to a mile and a half. I mean by terminated, it could not be traced any further. It goes out on the flat land. The slough disappears; from the termination of this slough we traveled westward.

(Points out the general direction and course on Map 4.)

The COURT—Where is this Section 20 that you have just spoken of?

193 A—In Township 25 South, Range 22 East. (Showing.) From this point a mile and a half more or less north of the Tule House I traveled—

Q—(Interrupting.) Trace your general direction?

A—Do you wish to have the sections?

Q—Yes, sir.

A—Assuming that the Tule House is correctly represented on this map, through Section 19, Township 25 South, Range 22 East, and Section 24, Township 25 South, Range 21 East, at some point on the high land about Section 23 or 26. In going from the point we left on Section 20 to the end of the Tule House Slough, and  
194 this high land on Section 23, in Township 25, Range 21, we found no channel. No indication of a channel. The country was a flat tule land. From that point we traveled northward, not keeping any reckoning, say about eight miles to the north, and come to what seemed to be a dry lake bed, no tules growing.

Q—Did you find any channel on that trip of eight miles to the northward?

A—No, sir.

Q—You say it seemed to be a lake bed; what lake bed?

A—Tulare Lake. From there we travelled easterly.  
195 We saw some cattle at some distance to the east, and we went to where the cattle were, and there found a slough. I should judge it was about Section 2, Township 25 South, Range 21 East. We found a large slough with some water in it—standing water. From the point where we started to go eastward to the point where we found this slough we had found no channel, and it was level, even tule land. At Section 2 the channel, I should think, was 100 feet wide and 8 or 10 feet deep. I followed that channel northward a mile or such a matter. I followed it to its end. At its end is flat, even



196 land. We then went some distance further north, beyond the end of this channel, and found unbroken tule country, but no channel. Then we came back to the point where we had first struck this slough, on Section 2, and followed it back. We came back on the east side of the slough. In following towards Tulare Lake we were on the west side; coming back we came back on the east side. In going north and coming back south we crossed no branch or channel. The general appearance of the country was flat—tule land. Having got back to the point where we first crossed the slough, we started to follow the slough northward. We then followed up the slough, on the east side of it, from Section 2 to Sections 12 and 13. About a mile and a half or two miles from this point on Section 2 the slough disappeared, at the southern end. It cannot be traced any further. In tracing it we could see both sides of the slough, but saw no channel running into it or from it on the west side. We did not go around on the west side, but could see across it.

Q—From there, about two miles or two miles and a half, as you say, from Section 2, where this channel disappeared, at its south end, where did you go?

A—Traveled some distance to the eastward.

198 Q—To the eastward?

A—Yes, sir.

Q—Well, what did you find?

A—Well, I should say we traveled to the eastward a mile or a mile and a half.

Q—Well, what did you find? Any channel?

A—I saw no channel; passed over an unbroken tule country. We then returned, in the direction of the Tule House; drove in the direction of the Tule House until we came to the bank of the slough.

Q—The bank of what slough?

199 A—On or about the north line of Section 29, Township 25 South, Range 22 East, I should judge, from the distance. We followed up on the west side of that slough to the Tule House. From where we struck it we saw no branch on the west side.

Q—Did you trace that slough any further north of the Tule House?

A—No further north of the Tule House.

Q—Now you have got back to the Tule House. What did you do next?

A—From the Tule House I followed up the slough that is there at the Tule House in a southwest direction, and



200 on the east side of the slough, say a mile, more or less. The slough was well defined—easily traced at that point; and we traveled in the bed of the slough a mile and a half.

Q—That makes three miles. What did you find there?

A—We found then we were near the western margin of the swamp and overflowed land, and we could see the high land from that point on the west side.

Q—Now, from the Tule House, can you fix the point that you had gone to on the map, or trace the course of the slough that you followed up from the Tule House?

201 A—It would be impossible to know exactly the route we traveled. The slough is crooked, winding about. We were going in a southwesterly direction, and the distance would bring us to about Section 21, Township 26 South, Range 21 East.

Q—Do you mean the general direction that was laid down on this map, as the connecting channel between the east and west sloughs there, from 32 to Section 1?

A—I should judge that this map 3 represented the course, very nearly, of that particular part. My recollection is that it is more crooked than it is represented on the map.

202 Q—From the Tule House to a point in Section 1, Township 26 South, Range 21 East, were there any branches of that channel that you followed?

A—Soon after leaving the Tule House we could see the mouth of the slough coming in from the west.

Q—Did you trace it up at all?

A—No, sir; I did not trace it up at all.

Q—After you got to Section 1 what did you find?

203 A—There we found a depression or commencement of the slough running to the north. We did not follow it. We kept on traveling to the south from that point. The slough from Tule House to Section 1 was of various depths. The greatest depth is down at the Tule House, where it is ten or twelve feet; the least depth, I should say, two feet. In some places it had no defined width; in some places, fifty, sixty or one hundred feet.

Q—What do you mean by no defined width?

A—The slope of the banks being so gradual, it was impossible to say where they ended.

Q—Now, from the point of leaving Goose Lake during this trip you have described, this course which you have followed, until you got back to the point on Section 1, did



204 you find any water in these channels, or any of them?

A—Water at the Tule House.

Q—Was that the only place you found water?

A—There is water above the Tule House, southward.

Q—You mean in that Tule House channel?

A—Yes, sir.

Q—Was the water running?

A—No, sir.

Q—Then in coming back from the Tule House to Section 1, did you find water in that channel?

A—In two or three places, standing. After reaching  
205 Sec. 1, we traveled south.

Q—Along the slough?

A—We traveled southward along this slough that we had followed up from the Tule House, I should say half a mile.

Q—Can you fix that point on the map?

A—I should say it was about Sec. 12, T. 26, R. 21.

Q—What point of Sec. 12 should you suppose?

A—It is impossible for me to say with any certainty what part of Section 12. I only kept the reckoning by the time of traveling. There the channel disappeared—  
206 could not be traced any further. The general condition of the country was even level tule land. There was no indication of a channel there to the south. From there we traveled to the west along on the margin of the swamp and overflowed land, I don't know exactly how far; two or three miles. Saw no sign of a channel in that two or three miles. The end of that two or three miles, I should say, was about Sec. 31, T. 26, R. 22.

Q—What did you do there?

A—We crossed to the highland on the east side, at a point on Sec. 3, T. 27, R. 22. We crossed from the west margin of this swamp land across the body of swamp  
207 land, to some point on Sec. 3, T. 27, R. 22.

Q—What was the appearance of the country there, in crossing that body of that swamp land?

A—Tule land from one side to the other; generally even.

Q—Did you find any channel?

A—No channel at all. Nothing to indicate a channel; nothing whatever. We completely traversed across the whole body of swamp land, from one side to the other.

Q—And you found no indication of a channel?

A—None whatever. Near the west side of the swamp



208 land we found some ponds. We passed between those ponds.

Q—What was the appearance of those ponds?

A—Standing water. I should say they were two or three hundred feet across.

Q—Designate on the maps where those ponds are?

[The witness does so; points them out in the neighborhood of Sec. 31, T. 26, R. 22.]

The WITNESS.—I do not mean to locate them definitely on that particular section, but in that vicinity. We found  
209 no indications of running water. (The witness corrects his testimony, and says that instead of making the crossing about Sec. 3, T. 27, R. 22, that he made the crossing about Sec. 33, in T. 26, R. 22, a course almost due east; and instead of getting on the east side of Sec. 3, it was Sec. 33, T. 26, R. 22.)

Q—From Sec. 33, that is from the east margin of the swamp land, where did you go?

A—I went to the corral; that is near the center of Section 3, Township 27; Range 22.

Q—Did you find any indication of a channel between those two points before reaching that corral?

A—No; we traveled along the margin of the swamp  
210 and overflowed land between those points. Saw no water. This corral is near Section 3, in Township 27, Range 22 East. From the corral we traveled south through Sections 10, 15, 22, 27 and 34, Township 27, Range 22.

Q—What did you find on that course?

A—I didn't see any channels or slough on that course. On that line from the margin of the swamp and overflowed land on the one side to the other margin on the other, it was generally uneven country.

Q—You saw no indication of a channel at all through  
211 there?

A—No, sir; from Section 34, Township 27, Range 22 I traveled southward into Section 10, Township 28, Range 22, and through Section 3, to some place near the western portion of Section 10.

Q—Did you find any channel through there?

A—No, sir. Going from that point we found no channel. It was the same appearance of country. At that point we found water. We could not travel any further in that direction on account of the water.

Q—Was there a channel there?



212 A—No, sir; the water was spread out over the country.

Q—How wide was that body of water?

A—A mile and a quarter or a mile and a half; just spreading over the country; following no defined course, but spreading out generally. We stayed all night at that point, and in the morning I crossed over the water in a southwesterly direction through Section 9 and a portion of Section 10, Township 28, Range 22. I found no channel in crossing through there. Crossed right through to the western margin of the swamp land; came right out near the bank of the Kern Valley Water Company's  
213 Canal, on about Section 8, Township 28, Range 22. Crossed over completely to the western boundary of the swamp land and found no channel through there—water all the way. In some places moving and in some places it was still. It was generally spreading out. After reaching the western side of the body of swamp land in Section 8, we came back to the camp on Section 10, where we started from. From that point we then traveled eastward, or a little north of east to some point about Section 2, Township 28, Range 22, on the eastern margin of the swamp; then we had made a crossing from the west to  
214 the east of the body of swamp land, and we found no channel through there.

Q—I didn't ask you whether you found any on this point from Section 10 to 2. Did you find any?

A—No, sir, no channel; there was some water on the portion of the section. The water we saw was running all southward. I didn't find out how it got there to run southward. From Section 2 we traveled through Section 2, Township 28, Range 22, in a southeasterly direction through Sections 11 and 13, Township 28, Range 22. We found along there a flat tule country—no channel; no water. From Section 13 I think we followed the  
215 Section line between Sections 19 and 24; that would be the range line; Township 28 South, between Ranges 22 and 23 East; south a mile. That brought us to the corner of Section 24 and 25, Township 28, Range 22 and Section 19 and 30, Township 28, Range 23. •

Mr. HAGGIN. Q—Up to that point did you find any channel?

A—We had crossed no channel or depression up to that point. From that point I traveled southwest through Section 35, Township 28, Range 22.

Q—Was there any channel through there?



216 A—No channel between those points.

Q—No indication of a channel?

A—No, sir; no indication of a channel.

Q—From that?

A—Through Sections 25 and 35. I reached the western side of this body of swamp land, near the bank of the Kern Valley Water Company's canal.

Q—You found no indication of a channel?

A—No, sir.

Q—Did you see any water?

A—I don't remember. I may have passed in sight of some water, but I did not cross any water. The general appearance of the country is very level, and tules. From this point, on Section 35, we traveled on the road, along the road by the Dover House. The road runs in a southeast direction, along the margin of the swamp and overflowed land. The road is not on the levee, but east of it, and runs by Dover's House. From Dover's House we continued along the road about a mile, southeasterly, along the western margin of the swamp, to some point about the centre line of Section 12, Township 29, Range 22.

Q—Now, from the point in Section 35, that you have last described, to that point in Section 12, did you see any channel?

218 A—No; we crossed no water or channel; I hadn't seen any. We traveled on the margin. I don't remember having seen any. From Section 12 we traveled east, through Sections 7, 8, 9 and 10, Township 29, Range 23. I went due east.

Q—Now, from that point in Section 12, on the western margin of the swamp land, describe what you saw and found. Did you find any channel in that course?

A—No sir.

219 Q—No indication of a channel?

A—No, sir.

Q—Any appearance that a channel ever had been there?

A—No, sir; with the exception of some salt grass and alkali islands, it was one level, and unbroken flat, covered with tules. (Witness runs his pencil over the line of map 2.) We went completely across the body of swamp land in that course, and come to the high land on Section 11.

Q—And no indication of a channel?

A—No, sir; we saw some water, but did not cross it, at some place about Section 8, I should say—standing



220 water ponds; we could see around them. Then from the east margin, Section 11, we followed the road along the east margin of the swamp and overflowed land, to the township line between Townships 29 and 30, Range 24. Between those points we saw no water. From that point went over to the county road, and left the swamp land. I traveled southeast, along the margin of the swamp land; traveled east to the county road, from the point where I left the overflowed land.

221 Mr. HAGGIN—In your testimony this morning you stated that you crossed this body of swamp land represented on these two maps Nos. 3 and 2, on certain lines running westerly across the complete body of these lands; that from a point on Section 12, Township 29, Range 22 east, on the extreme western margin of this body of swamp land, you went, as I gather, nearly due east. Was there any reason for your selecting that particular point for crossing this swamp—the line just south of Dover's?

A—I had some information in regard to that part.

Q—Was there any reason why you should select it?

222 A—Yes, sir. I had a map of that portion of the country, which showed no channel in that portion of the swamp and overflowed land. It was a tracing of a map that I had. It was a map showing the topography of that portion of the country, from Wible's headquarters down to about Dover's. I had seen the map at the Bellevue ranch, and the same or a similar one in this Court.

Q—Is that the map which you refer to? (Map "D," showing the map.)

223 A—That is a map similar to the tracing I refer to. I had a tracing of this map. I believe, from the representations of that map, that there was no channel at that point. My idea of crossing there was from what was shown on this map.

Q—Then you made crossing at other places further north, from time to time, on this trip that you had taken through this country. What was your reason for going across at any particular point?

A—At the most northerly place, where we crossed. I simply followed up the channel from the Tule House until it disappeared. I could not follow that any further. I did not see any more of it. And that point seemed to be a kind of flat or tule swamp from which these channels start, going out towards Tulare Lake. At the two



224 other points where I crossed I had no information at all; I merely conjectured that I could cross the tules at those points. I selected the other two places at random; just selected any line that I happened to be on. Where the water spread out, I thought it would be a favorable place to get a profile of the country, by going through the water.

Q—In going through that water, what did you find the profile of the country to be? Give me the depth.

A—From leveling, the greatest depth of the water being a foot and a half, and the shallowest all the way from almost nothing to a foot and a half.

225 Q—What appeared to be the current in the different parts, or was there any current in this body of water?

A—There seemed to be the greatest current in the shallowest places; not the shallowest; but the greatest motion was where the water was from four to six inches in depth.

Q—It was there running with the greatest velocity?

A—Yes, sir.

Q—Was there much velocity to this water?

A—It was quite perceptible. I could see the motion among the tules.

226 Q—In what particular parts do you mean?

A—In different places,

Q—Did you see the same velocity throughout the deep places, as well as in the shallow places?

A—The least motion seemed to be in the deeper water.

Q—Now go back a little. You stated some time this morning, that you were down on the margin of the body of water of Kern and Buena Vista Lake in its overflow. That statement, if I recollect right, was confined to the year 1873. Were you down there again in the year '74?

A—Yes, sir.

227 Q—How did you find that line then, of the high water mark in 1874?

A—About the same as in 1873. I found it different in different parts of 1874. I think the water in 1874 or 1873, receded two or three feet in depth. In 1875, I think there was more water than in previous years. By that I mean the water spread out further and came further north; and in some places it spread northward beyond the line it made in '73. In the Fall of 1875, I think the water had fallen two feet from the Spring of 1875. High and low water about the same in 1876 as in 1875. High



228 and low water both. I think late in 1877, the water was lower than it had been in previous years.

Q—Did you ever make any experiments as to the amount of loss of water in those lakes?

A—I made some observations in 1875 there.

Q—What did you find the average loss to be in vertical feet or measurement?

A—Take the average throughout the year, and the conclusion based on the observations I made, give the evaporation and shrinkage in the water five or five and a half vertical feet. I have made other surveys about the margin of this body of water than those made in  
229 1873 up to the present time. Those surveys extended along the northern line of this body of water generally. I have made such surveys along the margin, almost every year, so that I have observed almost every year how high the water was in these lakes, and how far back it would recede.

Q—This body of water that you spoke of having met, that you crossed—I don't know exactly the locality—can you tell me where it was; in this trip that you made last April, down on the swamps? You said that in going to the southeast from the north, you came through a body of water about one foot or so  
230 deep, and down to nothing. Where was that?

A—We crossed that in a southwesterly direction from Section 10, Township 28, Range 22.

Q—Did you see where that water came from?

A—No, sir.

#### Cross-examination of

WALTER JAMES.

To Mr. HOUGHTON—I cannot give the exact date that I crossed Kern River on Sec. 18, in T. 29, R. 28, in  
231 the year 1871. It was the latter part of April or early in May. I don't remember. I said the water was 300 feet wide, and from four to six feet deep. I said there was a fair stage of water.

Q—When asked to give the width and depth, you said it was 300 feet wide and from four to six feet deep.

A—I think that is my recollection.

Q—Would not that be more than a fair stage of water at that point?

A—Not at that time of the year, I don't think. I think there is such a body of water flowing by that



- 232 point to-day. I cannot say whether there was as much water flowing at that point at that time as there is now. I have not seen this place for some time. I only state my recollection of the appearance of the water at that time. I live on the other side of the river, and cross it often. Have crossed it within a week. I know how the river looks, but I have not made any measurement of it. I took no careful measurement of it in 1871. I will correct that answer. At the time we then crossed it, the width and depth of the water was then measured, but I have no recollection of the figures we made. I stated the quantity of the water by my recollection
- 233 of the appearance of the river.

Q—Judging from the appearance of the river at that time, and the appearance of the river now, was there more water in the river then than there is at the present time?

- A—I cannot say. After crossing the river in 1871 I came to Bakersfield, and remained, I think, one day. I then went down across Kern Island. The first night I stopped, I think, near Barnes. We crossed Old River. I first crossed Old River, which was 150 feet wide and two or three feet deep; then I crossed Buena Vista Slough, where the water spread out a quarter of a mile, and was one or two feet deep. I then crossed
- 234 New River channel. My recollection is that I crossed two channels of New River. My recollection is, the first channel that I crossed of New River, my recollection is, was 150 or 200 feet wide, and from two to three feet deep. I cannot tell where that channel was. I don't think I could tell about where it was. Or, within three miles of the river, we were off our reckoning at the time, and I crossed this Buena Vista Slough on Sec. 26, T. 30, R. 27. From there I think I went in a northwesterly direction. I don't know where I struck the river.

- 235 Q—About where?

A—We must have crossed the river at some place in this T. 30, R. 25. I cannot tell about where. I cannot tell whether I crossed it above or below Tracey's Crossing. I do not know. I do know that I came to a channel 150 or 250 feet wide and two or three feet deep; that is my recollection; and then I came to another one about the same size and depth.

Q—How far apart were those two channels?

A—I don't know.

Q—Were they one mile or ten? Do you remember?



236 A—No, sir. I remember that they were less than ten, and probably more than one mile. I don't think I came to any other channels after crossing these two before reaching Sec. 2, T. 30, R. 24. I am not sure; but that is my impression. I cannot, from my knowledge of the country acquired since that time, state what two channels I crossed in 1871. I never have discovered them since. I know the channel at the lower end of Kern River, known as Gage's Slough. I think I first saw it in 1873. I didn't see it in 1871 to recognize it.

Q—Where does Gage's Slough leave the main river?

237 A—I can designate it on the map [referring to map] on Section 22, T. 30, R. 25. When I first saw it in 1873—some time in 1873—there was water flowing in it. I don't remember its width. Where I saw it, it was very narrow; 25 or 30 feet wide and 4 or 5 feet deep. I should think it was in the early part of 1873, from the fact of its having water. I cannot say at what particular times I have seen it since 1873, it has been generally dry. I think I have seen water in it though since 1873, I cannot say how many times; but about two or three times, I think, in 1874. I am not positive that I saw water in 1875, but I think I did. I don't think I saw any water in it in 1876. I don't think that there is any water running in that slough now. I don't know that there is anything to prevent water running in that slough now. I have not seen the head of the slough for a long time. There was nothing in the river to my knowledge to prevent the water from running into that slough. I do not know that there is a levee thrown across the river where that slough runs out. I assisted in making the surveys from which map H was drawn. I presume I ran down by the point where Gage Slough puts out of Kern River, and I saw no levee at the mouth of that slough to my recollection. I did that work in 1879.

238 Q—Where did the waters which run through Gage slough empty into Buena Vista Slough?

A—They emptied into a pond on Section 30, Township 30, R. 25, and from that pond into Buena Vista Slough.

Q—Where did the waters that ran down the middle channel of Kern River empty into Buena Vista Slough?

A—On Section 30, T. 30, R. 25.

Q—How far is that from Cole's headgate, or bridge?



240 A—A mile and a half northwesterly. The last measurement that I made when I was measuring the depth of the water in Buena Vista Slough, between the lake and the mouth of the middle channel of Kern River, and which I testified to this morning, my recollection is, was made very close to the middle channel; it might have been 100 feet. I made no measurement of the depth below that point.

Q—Have you ever run levels along Buena Vista Slough from Buena Vista Lake to that point?

A—Yes, sir.

241 Q—Have you ever run levels below that point down to Wible's head-quarters?

A—Yes, sir.

Q—What is the difference between the elevation of Wible's camp, or head-quarters, and the mouth of the middle fork?

A—I don't remember the difference of elevation.

Q—Do you remember about what it is?

242 A—No, sir; I do not. I have not the notes. I don't know where they are. I think I saw them last about a year ago; have not seen them since. I then left them at the Bellevue Ranch in the custody of Dr. Thornton. I did the work for Carr and Haggin. I made no grade sheet at the time.

Q—What is the distance between these two points, Wible's head-quarters and the mouth of the middle fork?

A—I never measured it; it could be computed on the map, approximately, it is about five miles.

Q—Don't you remember about the difference of elevation between those two points, Wible's head-quarters and the mouth of the middle fork?

A—It is about five miles.

243 Q—Don't you remember about the difference of elevation between those two points?

A—No, sir; I remember about the difference from the one extreme to the other, but the intermediate points I don't remember.

Q—What is the difference between the two extremes?

A—To the best of my recollection, the difference was seven feet, that is, from the bridge at Cole's to the Head-quarters camp. I don't remember the difference between Head-quarters camp and the mouth of the middle fork of Kern River. Cole's bridge is higher than Wible's camp. I ran other levels on Buena Vista



244 Slough, with Mr. Fillebrown, in 1878; I ran some other levels on Buena Vista Slough, between the bridge and Head-quarters camp; I also ran levels below Head-quarters camp, several miles below, about 15 miles. I ran a portion of the way along the Kern Valley Water Co.'s Canal; I ran out to the hills, westward; I never ran levels below Head-quarters camp, following Buena Vista Slough.

Q—How far did you follow the canal in running levels?

A—I think, down to Dover's; that was in 1877.

245 Q—What is the difference in elevation between the point to which you ran at Dover's and head-quarters?

A—I don't remember now.

Q—Don't you remember what it was?

A—No, sir.

Q—About what was it?

A—I cannot say.

Q—Don't you remember what it was to the mile?

246 A—I don't remember that I did that work for Carr and Haggin. I don't know where the field notes of that work are; I have not got them; I left them at the ranch, Bellevue; made no grade sheet of that work; left them with Dr. Thornton; have not seen them since; if I have I don't remember. I think I ran some levels also in 1874, between Buena Vista Lake and Tulare Lake, for a short distance along the east margin of the swamp and overflowed land, only a short distance, down to Sec. 2, in T. 30, R. 24. I started from some place in the middle channel of the river—at the middle channel.

Q—What is the difference between those two points of elevation?

A—That I don't remember.

Q—Don't you remember about what it was?

247 A—No, sir.

Q—Who did you do that work for?

A—For Haggin and Carr. Have not got those notes; I presume they are at Bellevue Ranch; I left them there with Dr. Thornton. May have seen them since; not recently.

Q—Is that all of the levels you ever ran on Buena Vista Slough?

A—That is all I remember of now, I have not run levels all of the distance from Buena Vista to Tulare Lake. I don't know the difference of elevation between those two lakes.



248 Q—Returning to 1871, you say that the first night after leaving Bakersfield you came down to the Barnes settlement. Where did you camp the next night?

A—I think we camped on New River. The next day I continued on, and stopped that night at the Point of Timbers, on Goose Lake Slough. Remained there one night and continued on the next day, and I think we went 10 miles north of Goose Lake; and the next day went about 20 miles. I crossed the swamp land next day after we camped at Point of Timbers.

249 Q—Then how long was it from the time you crossed the river above Bakersfield, what time had elapsed from the time you crossed here on Section 18, Township 29, Range 28, until you had crossed the swamp down below?

250 A—Only a few days; I don't remember. We were a few days in Bakersfield; I don't remember. After leaving Sec. 2, in T. 30, R. 24, we followed along the margin of the swamp land, but not very far. We found water at all points where we followed it. The distance between the point where we last saw water flowing, and the point where we crossed the swamp land would be the distance from Section 2 to the point where we crossed. After leaving Section 2, we followed along the margin of the water for some distance, but not far; a short distance. My recollection is, that it was a mile and a half or a mile. We only followed along the bank of the slough that we found on Section 2 a short distance; my recollection is, about half a mile, or such a matter.

Q—You say that when you crossed by the swamp land you did not find any water, or any indications of water. Did you find anything there to indicate water?

A—No, sir.

251 Q—You found nothing to indicate that there had ever been any water flowing through there?

A—It was tule land, which would indicate that it had been submerged at some time.

Q—Then you did find something to indicate that the land was overflowed with water; or that the water had been flowing there? How is that?

A—I didn't understand your question. I stated that the land was swamp and overflowed, and had the remains of burnt tules upon it, which would indicate that it had been overflowed. But at that particular time there was no indication of there having been water flowing there at any time that would make an indica-



252 tion of any interest to us at that time. There were the remains of tules which had been burned off. And I think there were some tules standing that had not been burned off in some places. After we crossed there, we continued in the road down to a point which I indicate as Section 15, Township 25 south, Range 21; that is as near as I can locate the point at this date. After crossing the swamp we traveled along that road around on the west side of Tulare Lake. Between the point where we crossed, and where we came to the swamp land again, I found water; my recollection is, it was about ten miles. That point, as near as I can fix it, was on  
 253 Sec. 15, T. 25, R. 21. I don't know when map H was made. The surveys from which it was made were run in 1879. Mr. McMurdo assisted me in that work. Mr. McMurdo ran the meander line; and I ran the offset line. We each of us had a party. Mr. McMurdo ran the meander lines along all of the channels represented on map H.

Q—Did he run the meander line along the Buena Vista Slough, as represented on that map?

A—Yes, sir.

Q—The whole distance?

A—The whole distance represented on that map.

254 Q—Did he also run the meander line upon all of the channels that appear there in connection with New River?

A—Yes, sir, with the exception of, I think the channel ran from this point; that is to say from the point near the quarter post between Sections 28 and 27, T. 30., R. 25 E. southward. I think the meanders were not made at that time, I cannot say when the meanders were made on that line. But they were not made in 1879. I was not on the survey when they were made. I don't know as a fact when they were made.

255 Q—Why was not that line run in 1879, when the balance of the meanders were run?

A—A portion of it may have been run in 1879, I won't state positively, but I had nothing to do with running that portion of it.

Q—You were running in 1879, all of the meanders of all of the streams were you not?

A—Yes, sir.

Q—Why did you omit that one?

A—I say that I don't know that it was omitted, but I didn't make any survey on that channel myself. Mr. McMurdo, I think, made some surveys after I came



256 away from that point; how long after I don't know; I think he went back the same year and made some surveys. When I made this trip in 1871 my brother was with me; and I think we had five men. My brother's name is I. E. The object of the trip was for general information. I mean to gain information of the country. I have seen map H before. I don't know who made it. I presume the map was made from some notes or references to some of my notes of surveys that I had made. It was not made almost as a whole from actual surveys made by me.

257 Q—Do you know who that map was made for?

A—That map was made for Haggin and Carr.

Q—For what purpose?

A—I don't know, sir; for their own purposes.

Q—Wasn't it made for a special purpose?

A—I don't know that it was.

Q—Don't you know as a fact that that map was made in connection with their applications for desert land?

A—It was made and used in that connection.

Q—It was used in that connection?

A—And was also used as a matter of convenience of the employees of the company going about over the country.

258 Q—Who made that map?

A—I cannot say. I think Mr. Fillebrown made the map from which this map was taken. I had something to do with making the original map.

Q—Where is that original map?

A—That I don't know.

Q—When did you see it last?

A—I saw it last at McClung's ranch, I think, soon after it was made; don't think I have seen it recently, to recognize it. The last time I saw it, I think it was at McClung's ranch, but I am not positive that I saw it there. I assisted in making the map, and furnishing the information from which that map was taken. The last time I saw the map it was in my custody; it was when we were working upon it. I don't know to whom the map was delivered after it was finished. I think the map was finished in San Francisco; it was made for Haggin and Carr; I helped to make it.

259 Q—Haven't you seen it within 30 days?

A—The map that I speak of was finished in San Francisco, and I don't know that I have seen it since it was taken there.

Q—Don't you know that you have seen that map



260 repeatedly since it was finished by Mr. Fillebrown in San Francisco?

A—I have seen several maps of the same topography, and representing portions of the country; but I don't know that I have seen the original map that was made by Mr. Fillebrown since it was taken to San Francisco. That original map from which this was taken was made in part from actual surveys made by me; I had made surveys of this portion of the country, from time to time, and had notes of the intersection of the section lines of the various rivers and sloughs; and the map was made using those notes. There were other surveyors who also had notes which were obtained for the purpose of making this map.

261

Q—Isn't it a fact that this map, No. 4, was made almost wholly from your work in the field?

A—A great portion of it was. Map No. 4 was made, as I understand it, by some person in San Francisco; he getting his information from the map I have spoken of as having been made in part at the McClung ranch, and finished in San Francisco.

Q—Then the basis for making this map were the surveys made by yourself of the country represented?

262 A—A portion of the map; not nearly all. I know nothing of the correctness of the figures given on that map, where the elevations are given; I don't know the elevation of Buena Vista Lake, nor of Tulare Lake.

Q—Mr. James, in your direct testimony you were asked the question as to what effect that levee had upon turning the waters of Kern River, or causing them to run down Buena Vista Slough rather than into the lake, and you stated that the effect of it had been to throw the waters so that the waters now would naturally run into Buena Vista Lake. If you had never run any levels over that country, how could you tell that fact?

263 A—I didn't state that I had never run any levels through that country.

Q—You stated that if the levee was not there the greater portion of that water would run into Buena Vista Lake, as I understand it.

A—The greater portion of the water now flowing there would run into Buena Vista Lake. The greater portion that is now flowing, I think was my statement.

Q—How could you arrive at that without knowing all the levels there? How is it that you are able to



264 state which way the water would flow after it run down Kern River, without knowing what the levels are?

A—Where the water is now discharging Buena Vista Slough is entirely filled with sand. The banks of the slough, where there was originally 6 feet of water, are now just seen above the level of the sand. The water from the river discharging on this sand, there is a down grade to the northward, which causes a portion of the water to flow in that direction; whereas, if the sand were removed, it would be discharged upon the southern slope of this bank of  
265 sand, and the down grade would be towards Buena Vista Lake, and there would be higher ground than the bed of the slough between the point where the river discharges and the portion of the slough further north.

This debris or sand that has filled up Buena Vista Slough or channel, flows in from the river.

Q—Now, in relation to this trip which you took between the 22d and 24th of April, at how many different points did you cross the swamp land from east to west or from west to east?

A—I think in four different places. I made four  
266 different crossings. At one point we crossed back over a portion of the route in the same place; but we crossed at four different points.

Q—Will you show me on this map where you made the first crossing, where you crossed the body of the swamp land?

A—[Referring to map 3.] The first crossing to high land?

Q—From east to west to the high land?

A—It was this trip that we made around to the end of the slough going down from the Tule House to the west side. In making that crossing, I started from  
267 the Tule House on Sec. 32. From there we travelled down the slough going northward from the Tule House, going something over a mile, I should judge. At the end of a mile or a mile and a half, as near as I can remember, we came to the end of that slough. After leaving the Tule House, if this map represents things correctly, we travelled down this slough. We went down to that point, and then went down on the slough that goes towards Tulare Lake; we went about a mile and a half and then the slough ran out. Then we travelled westerly to the high land. That was the



268 first crossing that we made; that does not complete the crossing. We struck the high land at a point northwesterly from the point where we turned to go west, which I estimated to be from a mile to a mile and a half north from the Tule House. That would be possibly on Sec. 15 or thereabouts, T. 25, R. 21. We then traveled northward 7 or 8 miles; then we traveled around, I think we made an excursion to the west, and then turned back and drove in an easterly direction to where we saw some cattle, and there we found water. To the best of my knowledge that would be some place about Sec. 2.

Q—Upon what is marked “Mud Slough?”

269 A—Yes, sir, in T. 25, R. 21. I could not say in what part of the section. I took no measurements. I followed that slough up one mile, or a mile and a half, more or less. I found the head of that slough, it could not be traced any further.

Q—Did you go at all between the point where you found the head of that slough and the termination of one which you reached about a mile and a half from the Tule House?

A—We travelled some distance in that direction, but I can't say how far, after leaving the termination perhaps half a mile. There was a distance between  
270 those two points that we did not go. After coming to the termination or end of this mud slough, we traveled easterly, after starting this way, we went around the end of the slough towards Tulare Lake. We found where the slough seemed to have discharged into the tule land, the flat land. We found a dry pond, or ground that had no vegetation upon it, the bed of a lake; and went around that. Then we came back on to the east side of the same slough. Then we followed that up a mile, or a mile and a half above the point where we first struck it. That would bring us to some place about Section 12, T. 25, R. 21. From there we traveled  
271 east, two or three miles, found level country all of the way, no slough. That would bring us about to Section 14—some place in T. 25, R. 22. We then traveled in the direction of the Tule House, and around south. In going to the Tule House we came to the banks of the same slough which we had followed down. Then we travelled on the east bank of that slough, until we came to the Tule House. After going around Mud Slough, we went no further east than Section 8. We did not cross over to what is represented in this map as Buena Vista Slough, did not go as far east as that.



272 From the Tule House we travelled up the slough, which was there at the Tule House, a part of the time, alongside of it until we came to this cross slough. Then we went into that slough or some place in that vicinity and followed it through until it came to the channel on the other side.

Q—You stated that after you had left the slough by the Tule House, a short distance, you came to another slough running in from the west?

A—We could see the mouth of another slough coming in.

Q—Is this correctly represented on there?

273 A—I should say it was. That is about the way it looked to us as we passed along the other side. After reaching this west slough we travelled in a southerly direction, and kept along the slough some distance as far as the slough goes. I should say it was a mile, or a shorter distance than a mile—a short distance from where it comes out to the junction with this other channel. Then we continued to travel southward. We did not go into the road after making that trip, after we travelled the first mile. We went in the tules or in the tule land. We were near the east margin of the tules; could see the high land all of the time on this side. There were more or less tules on the east from us where we went, but not very high. There were no tules at all where we were going; some small tules. From the looks of the country along there, I should think that we followed very near the segregation line between the high land and swamp and overflowed land. We drove along there in that manner two or three miles; found level tule country the most of the way. We kept along the west side some 3 or 4 miles before we left it; down to about Section 30. I didn't see, what would be a mile ahead of me, a cabin on the side of the channel. I saw a square corral near there, but no buildings. We passed a square corral. There are two corrals only a short distance apart. I think we went as far as the southwest corner of Section 31, T. 26, Range 22. I don't remember that we found a cabin at that point. There were some corrals there; no water there; I think we crossed somewhere about Section 30; from there we went to the east side of the swamp and overflowed land. In going across, we travelled a little south of east. I had an instrument by which I fixed the course. I was not making all of these trips with the instrument. We started from about the southwest portion of Section 30.



276 Q—And where would that bring you out on the other side?

A—At some place in Section 33. We travelled right across on tule land; there was tule land the whole distance; some island, some salt grass, knolls and alkali.

Q—You say that you found no channel going across that strip?

A—That is what I said. I did find some islands and alkali knolls; found no water. From Section 33 we followed the margin of the swamp through the swamp and overflowed land to the Round Corral, which was near the center of Section 3. From there we travelled  
277 south through the middle of Sections 3, 10, 15, 22, 27 and 34, right through the middle of them. I fixed the point by setting the instrument at the point of starting and running south. I didn't know that we were in the middle of three when we started. I know that we ran through the middle of those sections, because we came out on the quarter post on the south boundary of the township, and the line was fixed along through the middle of the sections. From there we went down into Section 10. From Section 34 we traveled in a southwesterly direction on the west portion of Section 10.

278 Q—What did you find in Section 34 and Section 10?

A—At the point where we stopped on Section 10 it was a level country; some high land. On Section 34 where we crossed it, it was alkali, barren land. Section 27 was much the same. There may be some water on Section 34, some that we could not see. Don't think there was any water on 27. No water on Section 3, in Township 28, Range 22.

Q—Did you, in crossing the township line between 27 and 28, come to a fence?

A—Yes, sir; we could not see the end of the fence where we crossed. We were east of the end of the fence. When we came to this point on Section 34 we were inside of the field. We passed through an opening in the fence, I cannot say how far from the western end of it; did not take any particular notice about that. We passed east to the western end of that fence; I don't know how far; it was some distance. I don't know to what point the western end of that fence comes. I cannot give you the approximate distances that we passed easterly of the west end of that fence. I didn't see the west end; I didn't see it. I don't know that it was so far I could not see it. I think I was on Section 34, and found the quarter-section post there.  
279



280 Q—What would that indicate, as to the point you were on; the center of the section?

A—No, sir; the half mile post on this section.

Q—The center of that Section 7?

A—Yes, sir.

Q—How do you know that you were not on Section 35? Was there anything on the post to indicate it?

A—Not on that particular post. We travelled back on this township line until we came to the corner of Section 35.

Q—How far did you have to travel from where you struck this, until you came to the corner Section 35?

281 Half a mile?

A—Yes, sir; and I saw no water on the west half of Section 34; no lakes or ponds. Saw none on Section 27; none on 3. When we went to Section 10, we first struck a point somewhere west of the centre of that section. Then we went southwesterly through the water to the high land on the west side. We went directly through Sections 9 and 8. Going through there, I think I fixed my course by an instrument, and took a due westerly course. We did not go across in a straight line across there. We went in a crooked line.

282 Q—What was your object in going in a crooked line?

A—In some places we came to ponds and some places islands; and then we would go round these obstructions. It was water all the way, we came to islands and ponds through there. We did not take a straight course from any point in crossing there.

Q—To go back again, I understand, from the Tule House, you went off into the side slough which goes west. Where did you strike the slough which is represented on this map 3, and on the east side, again if at all, after leaving the Tule House?

A—I don't know, sir.

283 Q—You did not strike it at all?

A—If we did, I didn't see it.

Q—You did not follow that slough at all from the time you left it on the branch slough in Section 32, in a southerly direction?

A—No, sir.

Q—You know nothing about that?

A—I know nothing about that, no sir; except that when we passed over this point of land described, we could not see it.

Q—You have not described a trip through. The crossing you speak of is near where you met section 33?



284 A—Yes, sir. We made no crossing that would bring us out on that slough between the Tule House and Section 33, Township 26, R. 22.

Q—So that you were not on this slough at all between these points?

A—No, sir.

Q—Now, going back, in making this trip across from Section 10 to Section 8, where did you then go?

A—We came back. We waded through the water, and we came back to Section 10.

Q—Did you come on the same line you went over on?

285 A—No, sir; by a little different route; but approximately the same route.

Q—What was the deepest water you found in there?

A—A foot and a half was the deepest water I crossed.

Q—What was the deepest water you found in there? Didn't you go around deep water?

A—We came to some holes that we could not tell how deep they were; and we did not cross those. After going back to Section 10, we went out to the margin of the swamp and overflowed lands, and then we followed down southeast. We kept pretty nearly to the margin of the swamp and overflowed land. We kept on until we reached about the corner of Sections 19, 24, 13 and 18, on the range line between Ranges 22 and 23, in Township 28, south. From that point we went a mile south. Then we went in a southwesterly direction across Section 25 to Section 35.

Q—How do you know where you were at that time? Had you fixed the point?

A—We found the section corner post set in the section corner from this point on the Township line, Section 34, where the fence is; we kept reckoning by the section corners down to that point.

287 Q—Did you find the section corners from Section 34 to where you struck the corner of Section 24?

A—Not all the way, but several of them.

Q—How do you know that you started from Section 24, then? Mere guesswork, isn't it?

A—If I remember right the posts were standing at that point. We either found that corner or the one next above.

Q—Did you have instruments for measuring a mile between those corners?

A—We measured by an odometer. From there we



288 started across Sections 25 and 35, diagonally across these sections. We came out on the 7th standard.

Q—I understand you found no water there, making that trip?

A—I crossed no water.

Q—Do you say you found no water?

A—I didn't say I found no water.

Q—Then you did find water?

A—I don't remember. We may have passed in sight of water, but we crossed no water.

Q—Did you go out of your course at all to avoid crossing water?

289 A—No, sir; we kept very nearly in a straight line all the way across.

Q—Did you see water while you were going across there?

A—I don't know whether I did or not

Q—Would you have known if you had seen water?

A—Yes, sir.

Q—You saw water from the time you left Section 25 and before you got across there; above on your right and left?

290 A—I don't remember that we did. I would not say that we didn't, but just now I don't remember whether we did or not. We saw a great many ponds after crossing there; we traveled down and along the road by Dover's. Then we went from Dover's over a mile along the road to a point that we supposed to be this centre line, that is, the centre line of Sections 7, 8, 9 and 10. We went across there. Going across there we went due east. Used the instrument in making the course, and kept in a due easterly course all the way. We saw some water in crossing there. We did not cross any water. After getting on to Section 10, we kept on to high land. Did not cross back again after that. In going across Sections 7, 8, 9 and 10, we found  
291 tules all the way, except some salt grass there about 3 to 5 feet high. I don't think they were 6 or 8 feet high. We fixed our course by selecting an object we could see from this side to that, and went from one object to another. Making that crossing we did not come to the bank of the slough at all. When we came back to town we came on the east side. We didn't go back. The last trip we made across was in a due easterly line, I think, about the centre of those sections. I cannot fix it as being the centre, but I can as being very nearly in



292 the centre of these sections. It is less than a quarter of a mile either one way or the other.

Q—Who was with you on that trip?

A—Charles Jackson.

Q—Who else?

A—Charles Jackson was the only one who was with me.

Q—Was some one else in your party?

A—There was Captain Taylor and Mr. Schuyler.

Q—What day were you at Dover's Camp?

A—I think it was the 23d.

Q—What day of the week was that?

293 A—I think it was Saturday; I am not sure. At that time, in crossing from Dover's, I did not come to a slough with water in it. We passed by a pond with water in it. I came only to the bank of it and passed right along.

Q—How far did you pass along before you got to the end of it?

A—I don't remember; a few hundred feet.

Q—What was your purpose in going down there on that slough upon the 22d, and 23d and 24th of April, 1881?

A—To get information in regard to that country.

294 Q—To be used in this trial?

A—Yes, sir.

Q—And you never had been there but once before; and that was in 1871, had you?

A—I had been on the margin.

Q—You never had been through the swamp land but once, and that was in 1871?

A—No, sir.

Q—Was it to get information as a witness in this cause that you went down there?

A—Yes, sir.

295 Q—Who were you employed by?

A—Haggin & Carr.

Q—How long have you been in their employment?

A—Since 1874.

Q—All the time?

A—Pretty much all the time; and I am still employed by them.

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Re-direct examination of

WALTER JAMES.

Q—You stated on your direct examination that you



296 passed some ponds, I think in the neighborhood of Dover's, or beyond Dover's—south of it; where were those ponds that you passed by after leaving Section 12?

A—[Refers to the map]—I cannot state exactly where I saw the ponds. They were in some places on about Section 7, T. 29, R. 23. There was no reason why I did not examine those ponds. I did not see the extent of them. Not exactly. My recollection is that one pond had some length east and west—a half moon shaped.

297 Q—You stated that you searched to see whether there were channels up there. Why, in what connection, didn't you examine those ponds?

A—We passed near enough to see the water and to see the shape of them. That is all that we cared to know about, and we were in a hurry to get through. And I do not think we passed between those ponds. I think they were both on the south of us. The water was standing in them.

Q—You speak of running some levels, in 1874, from the neighborhood of Buena Vista Lake north. What was the object of these levels? What was the object of the work?

298 A—If I recollect right, the object was to make some estimate as to the cost of lowering the channel of Buena Vista Slough; to let the water out from the lakes. I made an estimate, but I don't remember what the amount was.

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Re-cross-examination of

WALTER JAMES.

299 In making this last crossing, I think the pond, or ponds, we found were about on Section 7. We passed near the ponds. We did not strike the bank of it at all. We drove within 2 or 300 feet of it, I should think; but didn't go to the bank at all; went no nearer than 2 or 300 feet.

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WEDNESDAY, May 4, 1881.

N. R. WILKINSON,

A witness for the defendants, being duly sworn, testifies:  
By Mr. FLOURNOY—Q—Where do you reside?



300 A—Bakersfield, sir. I have resided in Bakersfield since July, 1871. I first came to Kern County in July, 1871—the 21st of July. I crossed Kern River when I came to Kern County; came in a stage from Visalia. I crossed Kern River at what is called Jewett's Crossing, just above the present County bridge. That was a ford.

Q—How did you find the water at Jewett's Crossing, at that date, in the river, as near as you can remember?

A—The river was about 150 yards wide, I judge, and the water was from 4 to 5 inches deep. And  
301 then you would get into a place, may be 8 or 10 feet, where it would be 2 feet deep. Then you came to a sand-bar again, 4 or 5 inches deep.

Q—Ranging from 4 or 5 inches to 2 feet deep?

A—In holes—deep places.

Q—In holes? Generally it was shallow?

A—Yes, sir. I don't think it would average more than six inches. I should judge it was about 150 yards wide. I came direct to Bakersfield from there. I didn't have to cross the South Fork in coming to Bakersfield. After crossing the ford down there, we crossed this slough between here and Hud-  
302 nut's, on the north side of town, here, called the Hudnut Slough. I then settled at Bakersfield. After that I used to take a gun and go out hunting on the banks of the river, from that time on, more or less, ever since I have been here. I think it was about a week after I first came here, in July, 1871, before I saw the river again. I saw it about two miles and a half, I should judge, from where I crossed—west, down the river. The stage of the water at that point was such that I could wade it. After that I frequently saw it. I could not state the number of times during 1871 that I saw it. I used to go down the river hunting almost every  
303 Sunday during the Winter of 1871 and the early part of 1872, up until the Spring rise of 1872. During the Fall and Winter of 1871, the water gradually decreased until the Spring rise came. That year of 1871, I don't think I was over three miles from where I first crossed the river. I was not down as far as the present bridge over the river—the Pioneer Bridge. The bridge was not built at that time. I could not state the time that the rise of 1872 came. I don't think there is a great deal of variation in the various years about the time



304 the water comes down. It comes down sometimes temporarily from the rains, but about the first of February is the time that it generally comes down, I think. The rise in 1872 was considered a little more than an average year, as to volume. I saw no overflow of the country. In the Spring of 1872 I was on the river, only opposite the town, two or three miles down. It was out of its banks, slightly, back of the Cotton Ranch. At that point the bank is continually changing, and there are no positively defined banks. Just a gradual slope; and the water would come up over there in low places where the grass grew. I could not

305 say how long that rise of 1872 continued. I was not on any of the lakes in 1872. I saw the river, I think, in the first part of 1873. I used to go hunting there regularly. I mean in the Winter and Spring, both. I was there both before and after the first of January, 1873. We went down on the south side of the river during 1873, sometime in February, to the best of my recollection, down to the slough at Cole's, at what is known as Cole's Crossing. At that time everything was afloat—a large body of water. We found water backed up from the river from what was called Tracy's

306 Crossing, in several places, over to what is known as the Alejandro place, and we got below the Alejandro place, about a mile, I should judge, and could not go any further, and there we stopped. I refer to Tracy's Crossing on New River. That is below where Mr. Rhymes lives. The Alejandro place is a little north and east from Cole's, probably due north. I am not sure I know where Cole's house was at that time. The water was very high at that point. I could see the house. It was a little bit of a cabin. The water was very nearly up to the window. It was around the house, nearly up to the window. The whole thing was water.

307 Q—Well, as far as you could tell, from your observations at that time, in what direction was the water flowing?

A—Southward, towards Buena Vista Lake. We could not get anywhere near the lake. That was my first visit there, and there was so much water and the ground was so soft that I was afraid to go around a great deal. That was in February, 1873. To the eye there was one sheet of water from Cole's down to the lakes, as far as I could see, and it spread out to the southward of Cole's. We encountered water at the



308 Alejandro place, near his house, the water was, probably a foot and a half deep, until we got a mile from the Alejandro place and turned into the road and camped there with the wagon, and then we walked the balance of the time; we walked around. We could not get down to Cole's place; that is, we did not get there. We remained there two days. I know the condition of the water in Kern Lake in 1873. I was canvassing for voters for the county seat election with Mr. McFarland for the removal of the county seat from Havilah to Bakersfield. I was down at Shelly's and Beady's place on Kern Lake.

309 (Points it out on map 4 as on Section 28, T, 31, S. R., 27 E.)

I could not say what season of the year it was. I know it was very warm. I should judge it was in June or July. They had some little patches of alfalfa there, and were using back water from Kern Lake to irrigate it. They were using water there in ditches. I think Mr. Shelly lives on the southwest quarter of Section 28. The patches which he was irrigating were right close to the house. And I saw Dr. Stockton's place at that time. He lives on the same line of sections as Mr. Shelly and

310 Mr. Beady, and to the west. The water was in the field back of his house—the back water from the lake. I didn't see it any further. That is as far as anyone lived; as far south I mean, and west, too, and we left there then. They told me that they were watering from the lake, but I could not see the sheet of water, on account of the grass and tules, and things of that kind. But we could see this back water—water held from somewhere. We went out and looked at it; we could see it as far off as the tules commenced to grow; just extending out from the tules.

Q—Were you at any other point eastward of that?

311 A—No, sir. At that time there was no one living any further down there, and we turned there. These were the furthest settlers down in that direction. We didn't go any further down that way. We came up. I think it was about June; but I don't remember what time in June it was. I didn't again see that body of water during the year 1873; not from that side, I don't think. I probably saw the lake again from the other side, at what they call the boat-house, in the latter part of 1873; the boat-house that belonged to General Beale. That was on the east end of the lake. It must



- 312 have been in the Fall of the year. I don't remember the month. It then looked like a very large lake; quite a large body of water; probably 6, 8 or 10 miles in length, and 3 or 4 wide. There was an open space there at the boat-house, where there were no tules, and you could get a full view of the lake. I saw tules growing around inside like the walls of a house. The water came up to the boat-house and around it. The boat-house was away out in the water. The water was south and east of it, both; and there was a bridge connecting it with the land. We must have crossed 150 yards of water to get to the boat-house. We remained 13
- 313 but an hour, and then went to San Emidio. I did not see that part of the country again that year, only when I returned back from San Emidio, which was the next day. We found the condition the same. I was down at Cole's Bridge fishing and hunting during the Fall of 1873. We crossed the river at Tracy's crossing of the river, and went down to Buena Vista Ranch. It was November or December. We went to Buena Vista Slough. We crossed at Tracy's Crossing, and turned down on the margin right to the slough, and struck the slough about one mile and a half west of the Buena Vista Ranch, very nearly due west; that is, the Dixon
- 314 Ranch. We crossed no stream of running water between Tracy's Crossing and the Buena Vista Slough. As to the time when I reached the slough, I can only tell you it was in the Winter—cold weather. Where we struck the slough, I should judge, was about a mile and a quarter to a mile and a half south of the present head-gate of the canal of the Kern Valley Water Company; that is south of Wible's Camp; the head of the canal.

Q—What was the appearance of the water in the slough at that time and place?

- A—Very little water. I think the water was low; still moving north very slowly. Whenever we shot 315 ducks or anything, they would drift off in a northerly direction, following the slough, and we could pick them up. I don't know the condition of the water in the lake at that time. I was down there fishing; I think it was that same year—sometime during the cold weather, and prior to the spring rise. We were fishing at the same place. I was speaking of where we would go hunting. We were trying to catch fish with a seine. There would be places 50 or 100 yards long where there would be water and fish, and then there would be a dry



316 place for 30 or 40 yards, and then there would be a hole again, with fish in those holes. There was no continuous flow of water, but it was in ponds or holes. In taking the seine from one hole to the other, we pulled it over the ground on dry land. At that time very little water was running into Tracy's crossing. I don't think there was any water at that time. I don't think there was any water at Tracy's crossing at that time. That is, Tracy's crossing on the river. I am speaking of the crossing on the river, and not on the slough. I next saw Buena Vista Slough in the spring of 1874; I judge sometime in February or March, during the spring rise.

317 I was down at Cole's ranch, about the same place that I was in 1873. At that time it was about the same as it was in previous years. The whole country was under water. That was in 1874; about February. I went down that time to Cole's house, and by keeping on the south bank of the immediate deep water, we could walk along down to where the bridge was afterwards located. The water was going into the lakes southward; a very strong current. It was more than the narrow place could carry. It would flow all over everything, and all moving southward into the lakes, as far as I could see. The water was going into the lakes, but we could not

318 see a continuous sheet on account of the tules that had grown, and a growth of grass. I don't recollect that I saw the lakes at any other point during the spring of 1874. I passed there in a buggy; passed by the boat house, as I told you. It was in 1874, that I refer to. The water had got out of the lake and filled up there very high, so that I could not go on the lake road, and instead of going around the point of the lake, I had to keep on south and turn and go to San Amidio.

[The witness is shown map No. 4, and says:]

The boat house I refer to is before you make a turn at the end of the lake to go to San Amidio. I think it is about  
319 on Sec. 26, T. 32, R. 27. That is where I should judge it was. That is on the southeast corner or south side of the lake. That was in the early part of 1874. I have passed that point probably 25 or 30 times, going backwards and forwards. As I told you, the water, in the spring of 1874, when I passed there, was backed up so we could not take the lake road, and had to go what they call the upper road. It was higher than it was in 1873; more water there. I don't know how much higher because I did not go down to the boat-house in 1874. I took the upper road; could not get into the house. That



320 lake was fuller than in 1873. I saw Buena Vista Slough in 1874. In October I went down there to make a survey for a place to locate a bridge and take measurements below Cole's house. It was under a proposition by the Board of Supervisors to build a bridge. I went to right below Cole's house, probably 100 feet from where the south channel would strike the slough. The bridge is not there now. It is not where the bridge was built. There is a head-gate in now, and the head-gate is below where the bridge was built; probably 20 or 30 feet south of where the bridge was built. It is practically about the same place.

321 Q—Did you report on having that bridge constructed there?

A—Yes, sir; by the county. I went down at that time for the purpose of putting in a bid to build a bridge. I measured the water across, and everything of that kind, with a view of making a bid on it. I made a bid on it. The contract was awarded to me and I sold it to Mr. Burrell, the man who built the Court house; and he built the bridge in December 1874, or January, '75. A levee was built also connecting with the bridge, by authority of the Board of Supervisors of the county. They commenced working on the levee about the time the work was commenced on the bridge, I think. The levee was finished some time in the summer of 1875. I think, that is as far as the contract went. I had nothing to do with the contract for the levee, and I only speak from my recollection as to when it was finished. I crossed the river in 1874, but could not tell at what time. I was all over the country. I undoubtedly crossed the river frequently. In going down the slough to hunt and to fish, sometimes we would go down to Cole's and sometimes go down back of the Buena Vista Ranch. I undoubtedly crossed the river every time I went down to the Buena Vista Ranch.

323 Q—Do you remember anything about the stage of the water in 1874, after the spring rise?

A—My observation is, that, whenever crossing the river in the fall part of the year, down at this place, Tracy's crossing, there was no water, that is, late in the Fall. That was my observation. I was in the habit of going down hunting and fishing, during the years 1873-4-5-6. I saw the slough each time I went down.

Q—What was your observation, if any, as to the course of the water in Kern River, after coming to the slough; as to the different stages of water in the river and lakes?



324 A—Well, during the Spring of the year; during the freshets we went down to Cole's place, principally, and to other places in the early part of the Winter. I have never been on the slough opposite Dixon's place in the Spring of the year, but down at the other places, there all the water I could see was going into the lakes.

Q—How long, according to your observation, would it continue to run into the lakes?

A—I could not say. When I would go down there in the fall of the year, it was going out of the lakes, and in the Spring of the year, coming into the lakes.

325 That was my general observation. The current would be southward in the Spring, and northward in the fall. After measuring for the bridge, I put in a bid which was accepted in November, and I was down there between that and Christmas, getting material on the ground. I was down there in 1875, when the bridge was finished—just after it was finished. I suppose that was the last part of January, it must have been. I was down there again in the fall of 1875. But as to the time, I would not be specific. I was down at the bridge in the Spring of 1875, and in the fall of 1875. I was back of Dixon's ranch, west of Dixon's ranch,  
326 about the same place that I have before spoken of. I was hunting. I was frequently down every year from 1873 right on. I saw Buena Vista and Kern Lakes in 1875. I was in a boat on the lakes. That is where the Buena Vista Slough enters Buena Vista Lake. I got there in a boat from the bridge. It was in the fall.

Q—Was Buena Vista Lake full at the time you were there in 1875?

A—It looked to be, yes, sir. In 1875, I saw the east end of Kern Lake, at the same place I have spoken of before. I could not say for certain what period of 1875 this was, probably in the fall and Spring both. I  
327 cannot specify as to the particular time.

Q—Have you any memory as to the appearance of the water in the lake, its volume, in 1875?

A—No, sir, not positively. I have been down, sometimes, when the water was nearly up to the boat-house. I have been down there in the Spring of the year when it was away up this side of the bank of the lake. It would sometimes be lower than at other times. It was generally highest in March, April, May and June. I knew of the slough in 1876. In March, I think.



328 The bridge washed away, and we were sent down there by the Board of Supervisors to see the condition of the bridge and make a report. That was in March, 1876. I performed that duty, and made an examination and report to the Board of Supervisors. I would recognize that report if I should see it.

(The paper is produced).

Mr. HOUGHTON—For what purpose do you want to give that paper to him?

Mr. FLOURNOY—To show the condition at that point, at that time.

The WITNESS—That is my report in my writing. That 329 is the original report, dated March 21, 1876.

Mr. FLOURNOY—We now offer to read this report.

Mr. HOUGHTON—We object to it, if your Honor please, as irrelevant and immaterial.

Mr. FLOURNOY—The witness states that he was sent down there for the purpose of making an examination as to the condition of the slough, and the bridge, and he reported the result of his observations, and that result, we think, is pertinent, being made at the time. This is the original report, not a matter of memory, and it seems to me is perhaps better evidence than any mere memory of the witness could be.

330 Mr. MCALLISTER—That is the original, is it?

Mr. FLOURNOY—Yes, sir.

The COURT—Is that report true and correct?

The WITNESS—That is just what we found there.

The COURT—Let it be admitted.

Mr. HOUGHTON—Note an exception, if your Honor please, on behalf of the plaintiffs.

Mr. Flourney reads the report, as follows:

“BAKERSFIELD, March 21st, 1876.

“To the Honorable the Board of Supervisors of  
“Kern Co.

331 “We, the undersigned, in accordance with instructions received, visited the bridge over Buena Vista Slough on the 20th day of March, 1876, and found it seriously damaged, so much so, in fact, as to be impassable for heavy teams, and liable to be washed away entirely unless attended to immediately. Wherefore, we would recommend that warning be given, and all travel suspended. We find the cause of this destruction to be the breaking of the dam constructed on the immediate south side of the bridge, connecting with the levee at each end for the purpose of



- 332 "preventing the passage of water into Buena Vista and  
 "Kern lakes, whereby the water on the north side  
 "has been raised 3 or 4 feet, saturating and rendering  
 "impassable the causeway leading to the bridge from  
 "the east side. The immense accumulation of water  
 "on the north side running through the narrow open-  
 "ing of the before mentioned dam, has washed out the  
 "piles upon which the bridge rested, deepening the  
 "slough from 4 to 6 feet near the centre. We find,  
 "further, that the water passing down Kern River dur-  
 "ing the early Spring rise naturally flows into Buena  
 "Vista and Kern Lakes, and that no levee or dam  
 333 "should be permitted to be built, to obstruct the water  
 "from flowing therein. We find that said aforemen-  
 "tioned dam obstructing the natural flow of the water  
 "of Kern River, and the break, in which has caused  
 "the damage heretofore mentioned, was constructed by  
 "the orders of W. H. Souther, Esq.  
 "We are, gentlemen, very Respectfully,  
 "N. R. WILKINSON,  
 "WILLIAM MCFARLAND."

The WITNESS—Mr. McFarland was with me when I  
 made that examination, and that is his signature to the  
 334 report.

Mr. FLOURNOY—The Court understands me as offering  
 this original report, made at that time by this Commit-  
 tee, for that purpose alone.

The COURT—That is all.

Q—Are the statements in that report correct?

- A—That was our observation. Yes, sir. We found  
 the condition there, in all respects, according to our  
 views, as stated in that report. There had been thrown  
 up across the slough right on the south side of the  
 bridge, a dam of sod, and this dam had given way in  
 the place probably 10 or 12 feet wide, and the water  
 335 was going through there with terrible velocity, and had  
 dug out the centre piling, and the bridge, instead of set-  
 ting in this shape, had fallen right down like that. (Il-  
 lustrating). About the centre pilings. A large volume  
 of water was there, going south into the lake. The dif-  
 ference in hight on the north and south side of the levee  
 was as reported in our judgment. My recollection is,  
 the difference was three or four feet higher on the north  
 side than it was on the south. The water was running  
 through the levee at a point before we got to the bridge.  
 At the east end of it, it had broken through in several



336 places, and we had difficulty in driving around the levee over this break. I have no idea of the flow of the water passing through there. But there was a good large stream. The most easterly break was probably a mile or a mile and a quarter this side of the bridge. The levee had just been constructed the year before, and it was new dirt—alkali dirt—and it dissolved by the water running up against it. I afterwards went down myself to repair the bridge, and we put a pile driver on it, but the bridge commenced to settle, and we went away and left it. I know that work was done on that levee afterwards. I have been down there 337 when the levee was being raised. Mr. Wible had charge of the whole thing. I judge that must have been in the fall or Winter of 1876. I did not see him at any other time. I was not there. In March, 1877, I was down there at Headquarter Camp, and they were building a large canal there. I crossed the slough right at Wible's Headquarters Camp. There was very little water in the slough at that time. Very little. We went down to what they call the Eperly, or Dover Camp place, a house about 15 miles down. Drove along the road. Did not go into the swamp land, but drove along the edge of it. Could see some pools of 338 water. The tules were very thick on the edge of this swamp. We could not see far in. I don't recollect whether I saw any running water or not. I could not see in there at all, as a general thing, on account of the tules. My fishing and hunting trips only came down to and included the year 1876.

I saw Kern River in 1877 at the bridge, and crossed it, going, at the bridge, and crossed it coming back at the bridge, right at Cole's. When we crossed the river at Jewett's ford, it was quite low there. Then we came back up here to Tracy's Crossing on the river, and went down on an island and then went across the bridge.

339 Mr. FLOURNOY—In reference to this report, I stated at the time it was offered, that we didn't offer it as an independent piece of testimony, only to show that this was the report at that time. I state now that we only offered it and read it for the refreshing of the memory of the witness. For all other purposes we do not present it at all. I make this explanation in order that there may be no misunderstanding as to the relation that this paper occupies in the case.

Mr. HOUGHTON—Your Honor will remember after we



340 had made the objection, they strenuously insisted on the document itself going in evidence.

Mr. FLOURNOY—For a particular purpose only.

Mr. HOUGHTON—When a document is offered to the witness to refresh his memory, it don't go in evidence. He simply takes it in his hand to refresh his memory. This document is in—

Mr. GARBER—There is some mistake about this matter. The suggestion that we don't like the testimony is not entitled to any weight. We do like it. It is just what we want to prove, and what we think we have proved by this witness. Whether under this section 341 of the Code that paper can be allowed for any other purpose than for the witness to refresh his memory, seems to me to be a question. I now offer to withdraw that paper, if it is in evidence. I offer to withdraw it; have it not considered in evidence in this case as a document.

Mr. HOUGHTON—We object now to the withdrawal of that paper after they have put it in the manner in which they have. I understand the motion which Mr. Garber makes in the case prevails to withdraw that document.

The COURT—As evidence in this case.

342 Mr. HOUGHTON—We except, if your Honor please.

Mr. McALLISTER—We would like to know whether the report is absolutely withdrawn.

Mr. GARBER—We withdraw it absolutely.

The COURT—I think that the Court has stated that the Court will not consider it as in evidence.

Mr. HOUGHTON—I understand now the motion of Mr. Garber is that the paper is absolutely withdrawn.

Mr. GARBER—Yes, sir.

Mr. HOUGHTON—To that ruling permitting the withdrawal, we except on behalf of the plaintiffs.

343

Cross-examination of

N. R. WILKINSON.

I was down on Buena Vista Slough during the high water of 1873, '74, '75 and '76, at Cole's Bridge. At that time there was a large volume of water flowing down Kern River. I crossed the channel that ran down by Cole's, and went over to the centre channel, the first time in 1873. I never crossed that centre



344 channel. I only went to the centre channel. I may have gone across it. We went to it hunting. It is more than probable we did not cross it; because our tent was on the south side of it, and we stayed right about that more. In the river, the water was at that time about up to my breast, in going across the south channel of it. That south channel, where we crossed, was probably 40 or 50 feet wide. The middle channel, where we struck it or crossed it, was probably 150 feet wide. My recollection is we did not cross that. Our camp was on the south side of it. The water running in that channel was shallow. We did not follow that  
 345 middle channel down to Buena Vista Slough. I don't think I was ever at the mouth of that channel, or where it empties into Buena Vista Slough. I know a channel north of the middle channel; that runs by the Dixon house or near it. There is a place that goes through the alfalfa field, south of the house, a little sag, which overflows there.

Q—Do you know a channel there, a deep channel? Have you seen a channel there?

A—No; I never was down through it. I have only seen it in passing down to the house. I have seen this sag off to the left. I never was right to it, nor was I  
 346 ever at a point on Buena Vista Slough where the channel empties into it. When I was down on Buena Vista Slough during the high water of 1872, 3, 4, 5 and 6, I was no lower down on that slough, or north, than Cole's bridge.

Q—Do you know in what direction the water ran that went from the middle channel into Buena Vista Slough after reaching the slough?

A—No, sir; I could not see up that far. I only spoke of the water I could see, standing where the bridge is, and looking up. I could see away on the other side of the south channel. I could see half a mile distant. I  
 347 speak of the water at Cole's bridge as I saw it. During none of these times was I ever down where the slough that runs by Dixon's comes into Buena Vista Slough. I don't recollect of having ever been at the Dixon place except in the Fall of the year; principally when the water was low. Then if the water was running at all it was running north. It was passing down the slough. I never was on Buena Vista Slough below the mouth of the middle branch of Kern River during high water. I think the County bridge that was put across Buena



348 Vista Slough was 60 feet. The levee constructed by the County in connection with this bridge, was about a mile and a quarter long, or a mile and a half. The bridge was washed away in 1876. That is, we were down there in March and it had been washed away previously. I don't know how long; a short time. When I give the width of the river where I crossed at Jewetts, in 1871, as 150 yards, that includes sand bars and everything. Where these sand bars come there there would not be over 2 or 3 inches of water, then there would be holes in there and places it had washed out, where it would be 8 or 10 feet wide; then another sand bar with  
 349 2 or 3 inches of water on it, and then a hole again. The present bridge in Buena Vista Slough is not at the same point where the County bridge was. It was about 20 feet from it. It is on the same channel. The County bridge went straight to the levee, (illustrating) and this deflects to the south. That was right on the same slough however, and about the width of the bridge from where the old one was. There is a double gate in the present bridge. There was no gate in the old bridge, but there is one in the present bridge.

Mr. GARBER—If the Court please, before this witness  
 350 leaves the stand I wish the reporter to take down the offer which I now make; that the instrument which was withdrawn on our motion, if the counsel on the other side consent to it, we are perfectly willing that it shall be read in evidence as originally offered in this case, but that we withdrew it for the reason we were fearful there might be an error in the mode of its introduction. We now offer, if they desire it, that this paper shall be read in evidence. They can do as they please about it.

Mr. HOUGHTON—We have no reply to make to any such offer.

351 Mr. GARBER—They have no reply. That is all.

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HENRY A. JASTRO.

A witness for defendant, being duly sworn, testified as follows:

I live in Bakersfield. I came to this county first in the fall of 1870, right here in Bakersfield. I know the country pretty well through which Kern River runs, after leaving the hills. I have seen it ever since I have



352 been here. I did not cross the river when I first came here. I came from the south. But I have been across the river since 1871, pretty much, you may say, every week.

Q—Do you know Old River, and can you tell where that river begins?

A—It commences here [pointing on map 4], right west of the Cotton ranch; probably a mile or a mile and a half west of Bakersfield. I have been to Old River frequently since I came here. There was considerable water run in Old River when I first came here. There was considerable more than runs there now. In fact, 353 there is none now at all there to what there was then. I speak of when I first came here in 1871. There was a great deal water in the Old River up to 1876 and the time they put the head-gate in there at the head of the river. Prior to the time the head-gate was put in there was more water running down Old River than there was in New River. I judge by their looks there must have been one-third of it going down Old River.

Q—I understand you to say that one-third of it was going down Old River?

A—Yes, sir; very likely one-third of this water.

Q—I understand you the most of the water ran 354 where?

A—The most of the water went down New River.

Q—In the low stage of water, what was the difference between Old River and New River prior to the putting in of this head-gate?

A—Well, I could not exactly state; about the same proportion; there was always water in Old River, I remember, up to the time that the head-gate was put in there. One circumstance that makes me remember this was, on July 4th there was lots of water in Old River. That was in 1873. I saw New River in July, 355 1873, at the point where Old River comes out, above and below. On July 4th, 1873, I think about one-third of the flow of water that came down the river went into Old River, and that continued up to the time that the head-gate was put in. They went to work in that river the first time in 1874, I think, or in 1875. I don't know when. I believe one gate was put in in 1874, if I am not mistaken. I cannot state positively; but I think it was in 1874. It was not at the immediate head of the river, but a little back of the river, south of the river, lower down. There is no gate at that place now.



356 The present gate is right at the head of the river. I cannot state positively when that was put in. I think it must have been in 1874 or '75. I don't remember now what year it was put in. I know a bridge across Old River, and I have crossed it. I crossed that bridge right after it was built. That bridge, I think, was built in 1874. I think it was built before the present head-gate was put into Old River. I saw water running under that bridge in 1874. There was a great deal of water running under that bridge in 1874; that is, in the Spring of 1874. I don't know how high it came up on the bridge. There was considerable water in the river though. The  
 357 river was as full in the Spring of 1874 as ever I have seen it—that is, Old River. In the Spring of 1875, there was water in Old River there, too. I don't think it was the same. The bridge is on Sec. 4. There is no other bridge across Old River. I crossed Old River at other places lower down; Old River I mean. I crossed it at Stine's place on the 4th of July, 1873. I think it was. The water was very deep, so that the horses and teams got stalled in it. It was more than belly deep. The river there is from 125 to 130 feet wide. We crossed it. I don't know how much current there was, but there was considerable, though. I have  
 358 been around Kern and Buena Vista lakes. The first time I went to Buena Vista Lake was in the Spring of 1872—tried to get there. We did not get to the lake. We got as far as where Cole's house is now; where the dam is now built. The whole country was under water, and it was spreading out into the lake just one sheet. We went from this side. We did not go along the margin of the lake; we went right down the river to Cole's. I know where Wible's Headquarters is.

Q—Are you familiar with that body of swamp land shown on map 4, and known as Swamp Land District 121; I mean the body of swamp land lying between  
 359 Tulare Lake on the north, and Wible's headquarters on the south?

A—I have been there, and I know something about it. I was first down there on the swamp land on the east side of the swamp in the year 1872. We tried to get there to what is called Elk Island. I did not know the swamp then as well as I do now. A gentleman went with me. We wanted to get down to Elk Island, but could not get there. We went down as far as we could get; I could not exactly say how far down. We got to



360 Broder Island and there we camped and came back; could not go any further. This Broder Island is probably 10 or 12 miles north of Wible's headquarters. We could not get to Elk Island. The country was under water so that we could not get there. We turned around and came back. The whole of the swamp was under water. We got out on the margin of the swamp to high land, and traveled around there. It was in the Spring of 1872. I have been down through that section of the country since. I was there the next Spring and following. It was the same way; there was lots of water there. The whole body of swamp land was full as far

361 as I could see. I went down in the swamp again in 1876; that was in August. I started over there and had some cattle down at Fowler's ranch. That is at the head of Tulare Lake. I followed this body of swamp land down. We went, not right down from Wible's, but we struck it further down, you know; struck it somewhere near what they called Weed Island. I believe that Bonnestell is there now. Struck it somewhere near Bonnestell's house. That body of land was dry. I tried to get water for my cattle. I looked for water and found water in holes. I could not see any channel there; just water standing in holes.

362 Q—Were there many of these water holes?

A—Yes, sir; I got to two holes with the cattle; no running water there then. I was right in the swamp. I was down there again about three weeks ago. I went down from the Buena Vista Bridge as far as the tule shanty—what they call tule shanty; I mean the slough bridge; the bridge across the slough at Cole's, or above there, and at Cole's crossing. There is no other bridge across Buena Vista slough that I know of. Wible's camp is below that; further north. From Cole's bridge I went down on the west side of the slough until I got to Wible's headquarters.

363 There I saw water in the canal; considerable water there. I saw a body of water from there northward. The canal comes out of a slough there. Pretty much all of the water from the slough was running into that canal at that time. I think no water was passing northward without going into that canal; not when I was down there three weeks ago.

Q—Standing on that levee looking northward, did you see any water?

A—No, sir.



364 Q—Well, from Wible's Headquarters where did you go? Can you on these plaintiff's maps Nos. 2 and 3, trace out your course generally?

A—I think I could. We went between the canal and swamp land along the canal. We went down, I think it must have been 18 or 20 miles along the canal to Estee's hog camp. That is south of the adobe holes. I could not tell you what section it is on; probably about a mile, I think, from the adobe holes. There is water right there in the slough in front of his house, or was then. It did not seem to be running there. From Estee's hog camp we went in the swamp, across the swamp down to

365 the Round Corral.

Q—From Estee's did you cross the swamp, right over the swamp?

A—No, sir; not right across. We went northward there, and then across the swamp.

Q—Did you find any channel in crossing the swamp?

A—No channel that I could see. I crossed to Round Corral. We found holes containing water. We went around those holes crossing in over to the corral. Round Corral is on the east side of the swamp, probably 25 miles from here or 27. We went from Round Corral to the tule shanty, and in a straight line on the margin of the swamp. We found no water; not the way we went.

366

Q—Did you cross any channel at all?

A—No. You see we kept on the same side of the swamp going there. From the tule shanty we crossed the swamp probably 100 yards from the house going over west; in a southwesterly direction, you may say.

Q—Did you find any channel through that country?

A—No, sir. To the north of the Tule shanty there is water. North of the house there is some water.

Q—Did you find any indication of a channel at the Tule House?

367

A—No, sir.

Q—You found water, you say, there?

A—Yes, sir. In a big hole right there near the tule shanty.

From the tule shanty, we went across the swamp land south-westerly, and struck the slough on the west side of the swamp. We traced that southerly, probably, about 3 miles. I did not trace it further because there was nothing more to trace. The water ran out. It was a level country there like a swamp generally



368 looks. We then crossed the swamp back again to the east side, and to the round corral.

Q—Did you cross any channel at all?

A—No, sir. We went from round corral over to Goose Lake, and from Goose Lake we went around to Cox & Clarkes fence, and then crossed the swamp to Dover's house. We crossed from Cox & Clarke's fence over to Dover's house.

Q—In crossing over to Dover's, did you find any channel at all?

A—Found water in holes; several holes there; the water standing in holes. These holes were not connected, because we drove around them.

Q—Did you drive around them without going into any channel at all?

A—No water, yes, sir. No depression in the ground from one hole to the other. The country was level, except some alkali knolls and here and there some high spots. Some of them were alkali, some of them were salt grass. We found no channel at Dover's. In front of Doyer's house there were some water holes; that is, east of Dover's house. We re-crossed the swamp from Dover's towards Broder's Island. In crossing we found water. It was not running. It seemed to be standing in the slough. It was very muddy; a sort of a slough that we crossed; there is standing water. That water was not very deep. I suppose it was about knee deep to the horses, and not to exceed 25 feet wide. I saw the end of that water northward.

Q—Well, did you see the end of it southward?

A—No, sir. We crossed them and went to Broder Island. We met no other water, and saw no other channel or hole. From there we struck across to the Button Willow Slough and crossed it. I don't know whether that is also known by the name of Goose Lake Slough or not. I was told it emptied into Goose Lake Slough. It was not in the body of swamp land, but east of it, and we left the body of swamp land before we struck it. After reaching Button Willow Slough, did not go back to the swamp again. I know the Calloway Canal. I knew it first when Mr. Calloway started to build it. He was at work there in the Summer of 1875. I sold him some sheep in June, 1875. Some of the Company teams were working there then constructing a canal. They were scraping there for the purpose of constructing the canal; the Calloway ditch. I delivered the sheep somewhere near



372 the old Rob house. It is where that deep cut is that came out of the slough where the ditch commences. They were working there then. The Rob place is where a man named Winkle lives, or did live; but he left there a year or two ago.

(The witness examines Map No. 4, and continues:)

That work must have been going on about Sec. 22, T. 29, R. 27. He was right where the canal came out of the slough. I could not say how many scrapers there were. There were 4 or 5 teams at work. It was about the middle of June that I sold these sheep to Mr. Cal-  
 373 loway. I have known the South Fork of Kern River which runs through the east of the town, ever since I have been here. That South Fork is claimed itself as a ditch. That takes water from the Kern River. I have known of its being used as a ditch ever since I came here in 1871. It has been used all of the time as a ditch, except some little time when the head was closed up; that is, every year except 2 or 3 years. At that time water was used in the South Fork. It came from the waste gate of the Kern Island canal; the side gate, and the South Fork has been conveying water ever since I knew it, in 1871. When I first came here the  
 374 water was used for irrigating purposes, and the mill used to get their water through there. Col. Baker got water through there to run his mill. It has been used for the same purposes ever since. At that time there was more water in the South Fork at some points than there is now, and at others there is not. When I first knew the South Fork more water was taken from the river into it than there is now. More water formerly ran through the South Fork than in later days. Water that was taken out in the South Fork never got back into New River; it ran south; never went back into Kern River again. In the years 1871, '72, '73, '74 and  
 375 '75, I traveled around through the country represented on map 4, in Township 31. I was through the lower end of the island there; I don't know what you call the sections. During those years there were some ditches there. I cannot state positively whether I found any other sloughs of water or not.

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Cross-examination of

HENRY A. JASTRO.

In the year 1871, and for some years afterwards, the Kern Island Irrigating Canal Company got its waters



376 from the South Fork. They take it now out of New River, about a mile above the South Fork. In earlier years, and later, a part of the water that ran into the South Fork was taken through what is called the Kern Island Canal now. The water, after passing through the Kern Island Canal, went down the South Fork again, and I suppose it ran on into Kern Lake. It was 3 weeks ago that I was down on this body of swamp land on Buena Vista Slough. Capt. Murray Taylor was with me and Mr. Vining Barker and Ed. Cross. We reached the bridge at Cole's in the evening, and stopped that night at Judge Dixon's; left there pretty early next morning, 377 and went right down to Wible's camp, and from there down to the swamp. We went to Cole's bridge the night before. It was six o'clock or half-past, I think, in the morning when we left Dixon's. We stopped that night at Round Corral, and we reached Button Willows, which I have spoken of, the next day at 2 o'clock.

Q. In making the round trip, you were from 6 o'clock in the morning until 2 o'clock the next afternoon?

A. Yes, sir; from Judge Dixon's. We found water at Estee's camp. I don't think I can locate Estee's camp on that map. We found water before we reached Estee's camp—water that came out of the canal. We 378 found Mr. Estee at his camp, and there was a German there.

Q.—Did he act as guide for you during that trip at all?

A.—Mr. Estee went with us to the round corral, to show us where we could get across the swamp land without driving through the deep holes. He took us across. I don't know that I can locate the corral we went to on the map. It is in a northerly direction, or northeast, from Estee's Camp. I don't know where Salt Slough is.

Q.—Is the round corral on a slough?

A.—There is a water hole not far from the round corral. That is just water enough to camp by. We 379 camped there that night. I could not locate it on the map. It is northeast from Estee's Camp, and on the east side of the swamp; not to exceed four miles from Estee's.

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MURRAY F. TAYLOR,

Being called for the defendant and duly sworn, testified as follows:



380 I reside in this county, on the Stockdale Ranch; have resided there since the 1st of February, 1877.

Q—Do you know the body of swamp land represented on plaintiffs' maps Nos. 2 and 3?

A—Yes, sir.

Q—When were you first on those lands?

A—I was first down on the 14th of April, 1881. We first struck the body of swamp land near where we crossed the canal, south of Wible's Headquarters. We went from the Buena Vista Ranch, and followed the regular road across. We went to the Buena Vista Ranch that afternoon of the 13th of April. To get to Buena Vista Slough, we went first to the bridge that I understand was at Cole's Crossing; but it is a continuation of the levee. The water was running very strong through there towards Kern, or Buena Vista Lake. There was a small portion of water that was high up; as we crossed, that seemed to be going the other way; but the great bulk of the water was going to the lake, running rapidly.

Q—Was there any reason why all of the water should not run to the lake?

A—Yes, sir; I think so. I thought that if it had had sufficient room that all of the water would have gone in that direction. It appeared so to me. I don't think this passage through this levee under the bridge was wide enough to have admitted the water in its natural flow; besides, there was a difference in the depth; 2 feet difference, I should judge, from just north of the bridge and south of the bridge. It is my impression that that bridge choked up the water. There was a good deal of water there.

From Cole's bridge we went north, and across the slough. Then we went about a mile. I don't know that I can show on the map. I should judge it was about here, (showing) on Sec. 30, T. 30, R. 25. The water was running, if it was running at all—was running very slowly; it seemed to be more of a hole than anything else, where we crossed.

Q—In which direction was the water running?

A—It was running—I could not tell exactly. I suppose it was running north, if it was running at all. It seemed to be more of a hole than anything else, there where we crossed. There was no comparison between the amount of water there and the amount at Cole's Bridge. The water at Cole's Bridge was a large volume of water; and this seemed to be mere stagnant water. There seemed to be very little current, if any. I don't



- 384 say that it was running. If it was, it was very slight. We went from there to Buena Vista Ranch. We crossed no slough or channel in going to Buena Vista Ranch. I have not been at the point where Old and New River divide. But I have been down the river at different points. I have been to the point where New River divides near Cole's Crossing. I was last there on the 10th April, of this year. [Witness points out on map H, where the river divides.] That is on Sec. 23, T. 30, R. 25. I should think that is the point. The majority of the water there was running down the channel towards
- 385 the left; that is, the south channel. I went down that channel until we came within sight of this levee. The water runs to the levee. I went as far as the water would let me go. It was spread out before we got to the levee some distance. I should judge that the water followed the levee down after it reached there in that channel and flowed into Buena Vista Lake. The largest portion of the water was in the South Channel. After reaching Buena Vista Ranch we stopped there over night. We started the next morning from there very early. We went from there across and struck the canal and went down by Wible's headquarters, and followed the canal down between
- 386 the canal and the swamp land. We must have gone down over 20 miles, I think; went down as far as the Crocker hog camp. When we got opposite that, we turned towards the swamp. Then we went to the house that we were told was Crocker's hog camp; I don't know where that is by sections. From Crocker's hog camp we went in a northerly direction, and then crossed the swamp. After traveling in a northeasterly direction we went further towards the east and crossed the swamp in the neighborhood of Round Corral. We crossed the swamp completely. In front of the house of the Crocker hog camp the water appeared to be deep.
- 387 There was a large hole of water there. I attempted to drive around it, but after going I suppose half a mile—I didn't know how much further it would go—I concluded to go back and get Mr. Estee, whom I had left at this house, to go with us and show us the way across the swamp, as I was not familiar with the country then. We got Mr. Estee to go with us. By bearing still further down towards the north, we went around the water. This water was apparently spreading out on the west side of this water-hole or slough, or whatever it is, spreading out on the level land; and we drove through



388 the water some little distance in a buggy. It was not over 3 inches deep. We drove a considerable distance through there; then, after driving through there, we went around the water-hole and found no more water. I suppose where we crossed it, the water had spread out at that depth 100 yards, probably more.

Q—In crossing it did you find any channel at all?

A—No, sir; it was as flat as this floor. I don't think there was half an inch difference in the depth of the water in the whole of it. After getting across it we went eastward, and there were one or two of these holes which we passed around in this trip across the swamp. 389 We did not cross any more. There was one, I recollect, had a little water in it, and we drove around that. We may have crossed one or two that were dry, but by just meandering a little we could get around them without driving over them at all. Mr. Estee was able to go around these holes easily. He tried to describe the route to me before he started with me. He said we would have no difficulty at all in getting through there, and he described the route, but I could not understand exactly the way he directed us, and did not know exactly where the objective point was. I did not know where the round corral was, and then when I went back he just 390 guided us through without any trouble at all, and after carrying us around this first water hole I told him I thought we would get along without his assistance. But he did not then leave us. He went clear to the corral with us. We had no trouble at all in crossing this body of swamp land, and going clear to the corral.

Q—Did you find any channel at all?

A—Nothing except those little water holes that we drove around without any trouble. We could always drive around them. There was one that I recollect in the course that I crossed near the end, but it was not as 391 far from it as it is from here to the end of this room; you could see that that was the end of it. There appeared to be no connection at all between those different holes. It struck me at the time that it was impossible to be a connection there between the water for the hole that was in front of the house, about half a mile north of the house, was backing out into the high land towards the west. We were on the west side of that water hole, and the water was backing out there and into the flat level land. I think it was due west; the general direction of it was west. That water came out of a break in the canal. I



392 imagine we had crossed the break about three or four miles south of this Hog Camp. From the round corral I went to the Tule shanty; I think it was seven or eight miles.

Q—Did you find any water at the Tule Shanty?

393 A—Yes, sir; there is a large excavation there. The water, I suppose, is about 300 feet wide on the top. It was stagnant water. There was no channel that we crossed between the round corral and the Tule Shanty. Just before we got to the Tule Shanty there was a little swampy looking land without tules on it, but it had a green appearance. It was not a channel, but just a flat country. There was a little excavation in that ground there, but I drove around it to the canal instead of following straight across it; I bore to the east and around it. The land was higher, though, right near there it just seemed to be coming from the hills.

394 I am Superintendent of the Stockdale ranch, and my business is farming entirely. I irrigate the entire ranch. I attend to the irrigation myself. It is under my personal supervision, and I had seen water turned through my ditches for the purpose of irrigation for the past four years, and have seen how the water runs and spreads out. It will seek the lowest places and there it will spread out over the land. I am accustomed to judging of different grades and levels with my eye. Have a great deal of that to do. I can tell different grades at all points, from one to another, near enough for all practical purposes.

Q—In speaking of these flat places which you crossed in going from the round corral to the Tule House or shanty, were there any indications there that it was a place where water usually ran?

395 A—No, sir; it had the appearance, to me, of a place where water would back, in case the low lands to the west of it were full of water. It seemed to me that water would back up there; no water would run. It would simply back. After reaching the Tule House we went south of the Tule House a short distance, and then drove across the swamp in a southwesterly course; I should think nearly due west; a little south of west. The Tule House was on the southeast side of the body of water of which I speak.

Q—Was the water in a channel of any sort?

A—Yes, sir; there is a channel there. The water terminated there near the Tule House, and in going south



296 from the Tule House there is a depression in the land there, very gradual, and it is, I suppose, 100 feet wide. We crossed that depression, and went west, or a little southwest, may be.

Q—After leaving that depression, did you come to any other depression or channel?

397 A—None at all. I drove them across the swamp to the high land, and then turned to the south; and in following the edge of the swamp up I came to the slough—a dry slough—at that point; followed that up on the east bank for three miles, I suppose. Sometimes there would be water in it; sometimes there would not be any. After going three miles I came to what I thought was the end of it. We turned then and went towards the east, towards the round corral. It was very gradual there. If there was any channel at all, it was so indistinct that I did not think it was worth while to follow it up any further. When we crossed there we went to the round corral.

Q—After that did you find any channel?

A—No, sir. We went directly to the round corral.

Q—Did this place over which you crossed run to the round corral from the west margin of the swamp?

398 A—I followed it up about three miles.

Q—How far was that from the west margin of that slough?

A—That channel?

Q—Yes, sir.

399 A—It seemed to be right on the west boundary of the swamp land, a short distance to the west. There was high alkali sage brush. There was no channel between that and the west boundary of the swamp land; none that I saw. It was getting dark when I drove over there, and I did not perceive any at all going to round corral. At the round corral we went into camp and stayed there that night. The next morning we started for Goose Lake, and after crossing Goose Lake we crossed the Cox and Clarke fence and down to this southeasterly corner, and there struck across towards Dover's, crossing the swamp. We crossed the swamp there from the end of Cox and Clarke's fence, to Dover's. We traveled right for Dover's. We could see the trees through.

Q—Did you come to any channel in there?

A—There was a little water hole there that we drove around. It was on the east side of the swamp. After driving around that we found nothing else until we got



400 to Dover's. We found no change at Dover's. The water hole on the east side of the swamp, after leaving Cox & Clarke's fence, that I speak of, I should suppose was a foot deep. There was three or four inches of water in the bottom and about thirty feet on the top; sloping down very gradually; very much as a saucer would slope. It was nearly flat. The water was left in the bottom, and was three or four inches deep. We crossed that hole from east to the west. The larger portion of that hole was to our left, to the south, and where we crossed it we could see the termination of it. We were about as far from it as  
401 from here across the room. It came to an abrupt termination at the north.

Q—Then I understand you to say that in crossing from there over to Dover's, you found nothing indicating water?

A—From that point, no, sir. That hole indicated simply a water hole, as we frequently met there in the swamp. It was a hole that would hold water, and had no outlet at all. We could see the end of the place. We were not more than thirty feet from the northern end. Just before we got to Dover's house, we went out to the well. There is a pump there, probably about a quarter  
402 of a mile from Dover's. We drove to the road that goes to Dover's. Dover's was a few hundred rods to our left, south of us. Then I turned and went back into the swamp to see this pump. After we got there, I found there was no water for watering our horses, and we struck then nearly due east across the swamp again. We did not go quite to Dover's house. We went, I should think, within two hundred yards of it, and from that point we could see high ground all of the way, and we struck the road and went into it. No depression there; perfectly level from there to Dover's house. No channel there at all. From that point we struck off towards this well and  
403 pump situated in the tules, 300 or 400 yards away probably; and we turned there a little south of east, and went on across the swamp coming to the high land.

Q—In crossing the swamp there to the high land, did you find any water?

A—Just before we got to the high land, there was a hole that we drove over. We drove near the north end, and within 20 feet of the south end of this hole or depression; there was no water in that if I recollect right. But there was a little mud towards the north. I could not see how far it ran, but towards the south we could



404 see that it had just begun. It came to a point just as the  
prow of a boat would come, and was shaped something  
like a boat. The banks were steep, and came to a point  
in this way (showing), and you could just see the level  
land beyond. There were little alkali mounds all through  
there. Where that pump was there was alkali and salt  
grass growing on it.

Q—Crossing the swamp land then from Dover's to high  
ground, on the east side of the swamp land, was that the  
only depression, this hole?

405 A—This was the only place that I noticed in the trip  
across there that had any water in it or that had any  
marks of a channel. There was one place on that trip  
that we left to our right, and we did not change our  
course at all, but we left it to our right—to the north.  
It seemed to be a depression there, but it had no water in  
it. After reaching the east side we just followed up the  
high sage brush land until we struck the road which  
runs from the lone willow to Tracy's headquarters, and  
we followed that road and came up to the McClung  
ranch. The lone willow is on Goose Lake, and we could  
see this tree on our left when we struck the road. We  
went then out on the high land above the swamp. After  
406 striking that road we came out and followed it up to the  
McClung ranch.

Q—Then did you not go back to the body of swamp  
land?

A—No, sir; we did not.

Q—Have you been on the body of swamp land since  
then?

A—Yes, sir.

Q—When?

407 A—I left home, the Stockdale ranch, on the evening of  
the 21st of April of this year, and went to the lone wil-  
low that night, just about a mile south of Goose Lake  
and camped there. The next day we followed the road  
along, I think, almost north to the round corral. Lone  
willow, I should judge, is on Section 32, Township 27.  
Range 23. That is my idea of the location. From there  
we drove down the east bank of Goose Lake to the road.  
There was no water in Goose Lake. I could not tell the  
lake except for the dead tules. You could see the re-  
mains of some dead tules there. It was perfectly flat;  
and not perceptible to the eye that there was any  
depression at all. We did not go into the lake—  
just passed along this road. Passing Goose Lake we



408 went down to the round corral, which is on Section 3, Township 27, Range 22. Found not a particle of water in going. It was all perfectly dry land. The land is high. We went along the edge of Goose Lake and the swamp. We could see the tules on the left, to the west of us, and high alkali sage brush land to the right. From the round corral we went to the Tule Shanty, which is on Section 32, Township 25, Range 22. We found water north of the Tule Shanty. It was stagnant water. After reaching the Tule House we traveled down the slough on the bank of which the Tule House stood. By  
409 down I mean north or towards Tulare Lake, and went about a mile. About a quarter of a mile from this house we went on the east bank of the slough, and then left the house. About a quarter of a mile from the house we crossed over to the west bank, then we followed this slough down as I think.

Q—How deep and wide was that slough at the point where you crossed.

A—At the point where we crossed it had about a foot of water in it. It was about thirty feet wide.

Q—How deep were the banks?

A—The banks were about two feet?

410 Q—Below the surrounding country?

A—Yes, sir; about two feet. The banks were about two feet to the level of the surrounding country. In crossing that slough we followed the course down, as I thought, through the edge of Section 20. Following the course of the slough, in Township 25, Range 22. Upon reaching this point in Section 20 the slough had run out entirely, and we had come out on flat tule land. There was no sign of a depression or sign of a channel or slough of any sort. The ground was perfectly level, and from the time we left the Tule House the slough had been  
411 diminishing in depth and width the whole time, until we got to the flat land on about Section 20. After reaching this point I struck off in a southwesterly direction; a direction a little south of west into Section 35, Township 25, Range 21. In going across there I came to no channel at all. Sometimes I would come to a little dry pool; and once we passed one of those pools with some water in it, which we left to the south of us. We passed on the north of that pool. We crossed no channel at all. Occasionally we came to little high alkali land, set apart with salt grass growing on it perfectly white.

Q—What was the appearance of the country?



- 412 A—Just as flat as this floor, so far as I could see. We struck the high land, probably, adjoining Sec. 34, after having completely crossed the tule land from Sec 20. Then we turned and traveled a little southeast, I suppose a half a mile, and came into the swamp, and turned up the swamp almost due south, and after traveling a short distance, we came to the end of the slough where it had run out, and we traveled on perfectly flat land through the tules, and came to the end of this slough, where you could see that it was spread out into the flat land. I then followed the slough up, probably half a mile south, and into Sec. 1, T. 26. R. 21, and stopped and took lunch.
- 413 We were still on this channel or slough that I speak of, when we lunched. The slough was still there, but we had struck it at its northern extremity, about half a mile, I should judge, above that point. After taking lunch I crossed to the west bank of this slough, finding it at that point, about twenty feet wide, and six or eight inches of water in it, banks sloping a little. We traveled then on the edge of the swamp land, and struck the road on the west side of the swamp land. After striking the road, we drove, as near as I can judge, diagonally across Sec. 27, into Sec 16, T. 25, R. 21, outside of the swamp land on high land. There is a road there. After going to that
- 414 Sec. 16, as near as I can locate it by the distance, we struck then north up into some of these sections (showing on map 3), and beyond the limit of map 3. After getting outside there I turned almost east, and came across somewhere, to a slough with water in it, and cattle feeding on the banks, which at first attracted my attention. Off to the east about a mile and a half from where I turned, we found a slough there that I suppose was 60 or 70 feet wide, and two or three feet deep, with standing water in it at places. After striking that, we followed that slough then up to the north on the west bank. After
- 415 following it, I suppose a mile, we came to what seemed to be a lake bed. There was no vegetation in it, it was perfectly flat. Probably that was a quarter of a section of land there. Between the point where we struck, it and the lake bed, there were no branch sloughs running into or out of it. The general appearance of the country was flat, and grown over with tules. After reaching the lake bed I turned west from the mouth of the channel we had been following down, and drove entirely around the lake. In making this circle, I could see no outlet at all. There



416 was no break in the tules. It seemed to be an impenetrable mass of tules.

Q—Is that lake designated on the map about the position? (Referring to map 3.)

A—Yes, sir; and marked "Laguna," near Sec. 2, T. 25, R. 21. That is as near as I can tell about it. I think that is the place.

Q—There are a couple of outlets marked on the map. Did you find any?

417 A—No, sir. If they were there, they were covered up with tules so that I could not see them. After going around the lake, we came back to the entrance to this slough, on the east side, and followed the slough up; and it seemed to me that we were traveling south almost entirely. We followed the slough up from the lake bed I have described, about three-quarters of a mile, I think, before the water ceased entirely. There was water in the slough in little places, but it was not a continuous water channel. But you could come to water, and then a little break in it, and then you would come to some more water. We followed it up three-quarters of a mile, I think. We continued up the west side of the slough for two miles, going southward. We may have been going a little east of south, but in a southerly direction. There it had just  
418 no beginning at all; it just drove right out into the tules and you could find nothing further of it. It disappeared entirely. In going along this slough from the lake, we followed right up the slough, and we could see the west bank of the slough. We could see it all of the way after we got above the water. We drove in the middle of the slough. There was no branch nor inlet nor outlet at all. I was looking for it, but did not discover any. After coming to the end of that slough, I bore off to the southwest, and continued following that course until I struck the trail that I had made in the morning, which I  
419 described as meandering through 20 and 30 into 35. We traveled about a southwest course until we intercepted this trail that we made in traveling from a mile below the Tule House, across the slough, that morning. When we did that the Tule House was in sight, and I bore easterly over to the Tule House, and went to the Tule House and camped. Just back of the Tule House, and coming up the west bank to the Tule House, there seemed to be a depression to the west, which had a kind of levee thrown up, where it intersected the slough that the Tule House is on. That is the only one. The de-



- 420 pression is almost opposite the Tule House; almost west of it, 200 or 300 yards; I don't think it was further: right across the slough. I went back to the Tule House and camped that night. The next day I had noticed, about a quarter of a mile from the Tule House, just before I crossed the slough upon which the Tule House was situated, that there was a dry channel or bed of a slough, or whatever you call it. It seemed to run almost in a due easterly course, about a foot and a half higher than the bottom of the hole that we were traveling down. I mean the bottom of the Tule House slough. It is about
- 421 a foot and a half above the standing water here, in this slough, that passes by the Tule House, that we had followed down here before, and I wanted to find out where that slough went to, and we went to the point where it intersected the Tule House Slough. We were then on the east side of the slough. After going to the point of intersection, I drove down the south bank of this slough, following its different meanderings, I suppose, a mile and a half, and there, I suppose, according to my recollection of the position, it would bring me into Section 28, somewhere, Township 25, Range 22. About a mile and a half from where we struck the Tule House it was lost. There
- 422 was a little basin right at the end of it, or a little clear place, right in the tules. I drove along there, and then there seemed to be a big mound of alkali land grown up, with sage brush, which runs out just below that high ground to which I went—somewhere in the middle of Section 27, or at the intersection of 28 and 22. After getting to that high ground, I then struck across almost westerly. In Section 20, here, I struck the trail that I had made the day before, when we went down on this course. from Section 20 to 35. In going across there from the high land we had crossed no channel or slough at all. We had gone around this, and it was entirely
- 423 lost. In driving around it, I drove on down in the same direction I was going until we struck this high backbone of land, which you could see running along on the west and towards the northeast. It extended completely out beyond the swamp, as far as I could see. I could see it a long way, and there was no swamp that I could see beyond that. After going back to the trail we had made the day before, we came up on the west bank until we reached the point where I crossed this slough that the Tule House was on the day before. Then I crossed at the same point, and came to the Tule House.



- 424 After reaching the Tule House that day, we traveled up this slough that the Tule House was on, a short distance, south, following south. The water runs the other way.

Mr. HAGGIN. Q—Well.

A—I traveled over the slough from the Tule House. I followed, I suppose, about three miles into Sec. 13. I think that is about the way it runs, except that when it got to this point it there forms a junction with this slough which runs on the west side of the swamp; that is, through Sec. 13, T. 26, R. 22.

Q—In following up that there, were there any inlets or outlets or channels that branched from it?

- 425 A—None at all that I could see. It just seemed to

run across and form a connection at this point with this channel over on the west side. There were no branches that I saw. At the Tule House this channel was 100 feet wide, may be more. It was a pretty wide channel, and five or six feet deep and it would be of different widths and different depths as you go along. Sometimes it would not be over fifteen feet wide and two feet deep. It would seem to depend on the character of the land through which it passes, whether the banks were high or low. After reaching Sec. 13 it formed a junction with the

- 426 slough on the west side. I had an idea that this was the slough we had touched the day before; consequently I drove down this slough, following it in all its windings, until I got to the place where we lunched on Sec. 1. That is about two miles, I should judge. After reaching that place where we had lunched the previous day, I just retraced my steps and came back and followed this slough up to a point on Sec. 13, where it turned off. Then I kept on up until I got, as I supposed, on to Sec. 24 going southward. Along in Sec. 24, the slough ran out, and

- 427 from the time we passed the point where the Tule House slough joined this slough, we could see that it was running out all the time. When we got on Sec. 24, we could see that the slough was lost, and disappeared entirely. We then went southeast in the same direction, and up in Section 25, I think it was, there were two lakes in Township 26, Range 21. I found there two lakes that were disconnected. The water of the lakes seemed to be on a level with the land surrounding them. There was no channel leading into or out of them; none at all. I drove around them. They occupied two or three acres each, I think. After reaching these lakes between those lakes, we drove across to the high alkali island, from which you



428 could look back towards the foot hills. Then we struck a course southeasterly, I think, traveling through Sec. 30 into 32 and into 33, in Township 26, Range 22. Going across there, I found the country perfectly flat. Occasionally we would see little water holes; two or three of them we passed either, to the right or left, that had water in them. Saw some dry; and no appearance of water. Did not cross these holes, but went between them. Did not cross any of them. Just kept on the level land all the time, on tule land. Crossed no channel at all coming out here at Sec. 33. Just in front of us I saw a high ridge that was grown up with thistles; and we just followed the ridge, which carried us right out to the road which runs from the round corral to the Tule House.

Q—That carried you across the swamp from east to west, from the west side of the swamp on Section 25, to the east side of the swamp on Section 33?

A—Yes; by "swamp" I mean that whole body of tule lands. After reaching the high or land with thistle growing on it—we drove right through the land and struck this road, which runs from the round corral to the Tule House. That was the same road we had followed before, and is on the east side of the swamp. We followed this road to the round corral, one and a half miles above the round corral. Round corral is on Section 3, Township 27, Range 22. After reaching that I drove to a little water hole there and took lunch, I think a few hundred yards north from the round corral. After lunching we crossed a little depression right between there, where the round corral is and where we lunched, and tried to go right across the tules, across the swamp there. When we got out we found all these places were full of water. There was one thing I noticed about the water. Just along in these little holes there was one hole that I passed around the south end of which was not much bigger than this room. It was flowing up from the north; the water from the north was coming south into this place. We there struck the water and turned back. I did not see any channel except in those little holes. There was a little pond that I drove around right at the foot of this place. Nearer the round corral than where we lunched there was a little depression in the land, but I don't think from looking at it that it was over six or eight inches below the land in front of it. It seemed to be a little hole scooped out. It had a little amount of water in the bottom of it; that is not where the water



- 432 was going south. It was further over in the tules. From where we lunched two hundred yards above, we could see the water below there filling up. We then went back and crossed to round corral; and were still on the east side of it. I then went right through these sections here—right through Goose Lake. I made this point here. (Showing.) Here is where the point of Cox & Clarke's fence is—the southeast point. I came as directly as I could to this point. (Showing.) That is the southeast corner of Township 27, Range 22. After reaching that point I went west two miles. This point that I speak of—the Cox & Clark fence—was on high ground
- 433 very high. It overlooks the whole country, and from there I took a course, as near as I could tell, southwest through Section 3. After traveling I suppose, about a mile, or a mile and a half from this fence, we were forced out by the water. We were trying to get around this water. I did not want to go through it. I was afraid I would get into trouble, and kept driving along towards the south. By driving between these little lakes on the flat ground all the time, we came to what we thought was the centre of Sec. 10, T. 28, R. 22. When we got there it was night, and we camped. The
- 434 water was right where we camped. We could see by looking westerly across the swamp, that there was a great deal of water, and this water had forced us down from our course. I determined that I would go across there and see how the water was. The next morning I started across on horseback, and my horse bogged down after he had gone two or three hundred yards, and I came back and left my horse and started on foot and took a surveyors rod with me, and just went through those Sections 9 and 8 to the high land near the canal, and right in sight of the canal, through Sections 9 and 8, T. 28, R. 22. From the time we left Sec. 10, our camp,
- 435 which was about the middle of the section, I was wading through water and tules until I got over to the high alkali land next to the canal. The body of water was about a mile and a half across.

Q—How deep did you find the water at the deepest place?

A—The deepest water I crossed was one foot and a half by measurement; I had this rod in my hand and measured it; I measured it all along as I crossed, and came out without getting wet over my knees; I was going from the east to the west; I found the deepest



436 place to be one and a half feet; I noticed the deepest places that I passed with a rod, and the deepest point that I struck; just to my right was a little open place that looked like a lake, just to the north of where I crossed, and I crossed just above this, and this seemed to be a little depression going into the lake, and I measured that place, and I had the rod in my hand, and one and a half feet was the deepest water I struck on the trip with one exception; I stumbled in some sort of a hole and went down a little deeper; it was just one leg; I just stepped down one foot into it; the other foot didn't go down into the hole; it came very near throwing me over. My reason for crossing there was that I just wanted to find out how that water was; that is the reason; I had only to examine the water and see its condition; after going to Section 8 I went back and followed the same course as near as I could, because the tules were broken down by the trail I had made through there; I did not want to make a new track; I went back to my camp on Section 10; then from Section 10 I went back towards this fence of Cox & Clark to where we left it the day before, but we did not go clear to the fence; stopped at the quarter section corner; that was the quarter section corner on Section 3, T. 28, R. 22; I then went through Sections 11 and 13 to the southeast corner of Section 13, T. 28, R. 22; we found corner posts in going through there at each section corner; from the southeast corner of Section 13 we traveled due south and came to the southeast corner of Section 24, same township and range; after reaching that corner we went diagonally across Sections 25 and 35 to the corner, and we found the corner post of Section 34, T. 28, R. 22, where it corners there at the township corner; we were traveling southwest then.

437 Q—Where did you cross there?

438 A—I had a map which showed that there was not anything in there of any consequence, and thought it was a good place to travel; it was a map that I understood one of the engineers—Mr. McCray—made.

Mr. McALLISTER—Map No. 6, wasn't it?

Mr. HAGGIN. Q—Was it a copy of this map?

439 A—Yes, sir; that is the map, as near as I can identify it; I think that is the map. We came right across these, Sections 35 and 25, to the corner of 34, to the extreme northern end of this map; we selected that point because the map that we had showed that there was



440 nothing in there to interfere with us; that corner of Section 34 is on the west boundary of the swamp land; that section post that I saw there was right on the western boundary of the swamp land; boundary of the swamp land; after reaching this corner we came down to Dover's; traveling south-east down the canal, stopped at Dover's; there was only water there in a well, no water-hole or channel; and after leaving there we came down to about the middle of Section 12, still traveling on the canal; we got to about the middle of Section 12, T. 29, R. 22, still traveling on the canal; then we traveled in a due easterly course, going  
441 through Sections 7, 8, 9, and 10, T. 29, R. 23.

Q—Why did you start there to cross?

A—That map showed us that we were not likely to have trouble.

Q—You were, then, guided in these two last crossings by this map D?

A—Yes, sir; in crossing there I found a dense body of tules from the time we turned off a short distance from the road, after leaving the Dover house, until we got across to the high land on the east side; we found no channel, but we sometimes found a lake or water-hole; generally they were dry; one or two of them had  
442 a little stagnant water in them, where hogs had rooted. Frequently we came to little alkali mounds, or islands, as it were, white alkali, covered with salt grass; we did not cross a single one of the lakes; we traveled between them; the country through there was flat tule land; we met no water through there; we crossed through that tier of sections completely across the body of swamp land from the west to the east; after crossing Section 10 we drove up opposite the Bonestell House, and went into camp, and stayed there that night, and the next morning came home; the lakes or ponds which we found  
443 did not run or lie in any particular direction; we would meet them sometimes very unexpectedly, and generally you would just ride upon them, or the majority of them; I think there were just as many of them round as any other way; they seemed to have no particular formation or direction; there was nothing about them, taking those lakes altogether, to indicate that they were a part of the water channel; no connected part of a water channel that I could discover.

Q—Now, from your experience through that body of swamp and overflowed land, traveling around as you have done, can you state whether there is a channel through there or not?



444 A—I will state that there is not; that there is no connected channel through there; we crossed the swamp at these points where there was no channel; Mr. James, Mr. Jackson, and Mr. Schuyler were with me on this trip; Mr. Schuyler and myself went in one vehicle together.

Q—Did you and Mr. James follow just in one another's track?

A—Not entirely; we went around in different directions; occasionally we would separate; we were each of us making independent observations.

445

Cross-examination of

MURRAY F. TAYLOR.

Mr. Schuyler went with me on this trip, and a portion of the trip we went alone and were not accompanied by Mr. James or Mr. Jackson; it was here at the Tule House where I went around this slough that I have described as running out into Section 28; Mr. Schuyler and myself went around that; Mr. James or Mr. Jackson were not with us; and in following this  
 446 Tule House slough, up to where it intersects the main slough, they were not with us, and we were alone; and then from that point back to where we lunched, and from where we lunched the day before in Section 1, back to Section 24, Mr. Schuyler and myself were together; the balance of the trip sometimes we were not together; those I recollect; the first trip I made, I found water running out of the canal that runs along by Dover's; it was running out below Dover's several miles, I think—three or four miles—I don't know exactly; it may have been a shorter distance; there is a break in the canal down there,  
 447 somewhere; the break was, I should think, on Section 21, T. 28, R. 22; that is three or four miles from Dover's; there was water at the Tule House, not running; there was no running water until I got about opposite the Round Corral; going across from the Round Corral I found some running water; that is where I described it as running south into a little lake; I fixed the Round Corral as on Section 3, T. 27, R. 22; that is where I first came to running water; that is where I attempted to cross and backed out; I suppose we could have crossed, but I didn't care about trying it. In going



448 from the middle of Section 12, T. 29, R. 22, and through Sections 7, 8, 9 and 10, T. 29, R. 22, we kept a due easterly course by Mr. James' setting his instrument, and we took a point on the mountains and followed it right up; we kept right in that line; we had this map with us.

Q—And knowing that at that point it was a clear channel through?

A—I didn't know it; we did not go to the right or left, trying to find channels represented on this map; we just traveled on this line; we were just looking to get across that swamp without striking a channel.

449 Q—Did you look to see whether the channel represented on this map, upon Section 9, was there or not; a quarter of a mile from where you went across?

A—We did not vary a quarter of a mile in our trip.

Q—Did you look for a channel on Section 8?

A—We just went right through; we took a course on the mountains, and went right through; there is one thing in crossing this section into 34, when we got to 26 we saw that on the other map there were some tracings of a slough in there.

Mr. HAGGIN. Q—Can you point that out on the map?

450 A—Yes, sir.

(Map is shown to the witness.) Yes, sir, I can point it out. That is not on here; that is a section near Dover's.

Mr. HOUGHTON—Dover's does not appear on this map, does it?

A—No, sir.

Q—Yes, here it is; here is Dover's. Section 26 is not on there.

451 A—In crossing this place we found that there was a little water, just a little depression there in the ground, and when I went to lunch I walked around the north end of it; while the horses were eating; and after lunch I drove around the north end of it; that was the only thing that we struck in crossing that place at all, and I went around that.

Q—You stated that in making that crossing diagonally across Sections 25 and 35, T. 27, R. 22, that you did that for the reason that the map that you had made by Mr. McCray showed no water there?

A—Yes, sir.

Q—Do those sections appear in this McCray Map?

A—No, sir.



452 Q—Then you are mistaken about that?

A—That may not be the one. When I crossed through Sections 30, and 32, and 33, I found it a perfectly level country; tules all of the way across; I found a level country through there covered with tules. We found no high land going through there, except a little patch of alkali, with salt grass growing upon it; except those little patches, no larger than this room, it was all tule lands; I do not recollect any large islands in Sections 32 and 33 of high land; there may have been; coming through there we just drove right out; as we neared the east bank—the east side of the swamp—I just drove  
453 right through a high growth of thistles; while we were in the body of swamp land, on Section 33, we found no slough at all; there is no slough through there that I saw that corresponds with the slough on Map No. 3; I crossed from there into on Section 33; I cannot tell whether I crossed near to the north or south line of those sections; we crossed a mile and a half north of the Round Corral.

Q—That would bring you on to the section line between 32 and 29?

A—Somewhere in that section; I could not tell you exactly where it was; I don't know whether that crossing  
454 was made nearer to the north end or to the south end of Sec. 33; we were just a mile and a half north of the Round Corral; because I had counted from where I had come out at the Round Corral, and we found no slough crossing there; that is a flat body of tules here; when we approached this there was a growth of thistles; we could see on the outside then; we drove right through those thistles, and after leaving those thistles we drove right on, and struck this road; we followed from the Tule House, and drove right along the slough; I crossed over in the course of that slough in that Section 13; we did not follow—

455 Q—Did you follow up, or attempt to follow up, the slough running to the left?

A—There was no slough; I just followed that slough as it ran. Where it came out we were right here at this point.

Q—You followed no slough along here as represented on this map?

A—No, sir.

Q—And you know nothing about the country around there? (Pointing.) And you didn't go over it at all?

A—No, sir; I have never gone from the point marked



- 456 Salt Slough to the point in 33 where I struck it when I went across that section; in crossing we came upon this side of it, and then crossed into these sections; I didn't go at all along the line represented by a slough here on Sec. 33, and the point where I left and crossed over to Sec. 13; we found no running water below the Tule House, and we found no water spreading over the country other than in holes until we got up opposite the Round Corral; this little lake that I drove around was close to the east bank of the swamp, close to the Round Corral; and this water was trickling in it, running to the north; we traveled west from there, and then we struck water
- 457 running over the country; I don't know how far we had gone—we struck the water at the highest point up here, in Section 10; I don't know whether there was water all the distance between 10 and the Round Corral; I didn't go in there; we came back and came around this water; when I went down there the first time and crossed the point where the water was running from the corral, which I followed down; I found water below that point, near Crocker's hog corral, right in front of that, wherever that is; it was a couple of miles below the break, I should judge; I don't know where the adobe holes are; I went through two large holes, due west from Goose
- 458 Lake, near Crocker's hog camp; I found water there, and we followed down this water; I suppose we went a mile and a half from the camp, traveling south, to get around this water; I went around it; then we got down here, a mile and a half probably, traveling through that swamp without a guide; I cannot exactly locate the distance; we traveled around the running water, and this water was spreading out in this way towards the west on the flat surface; the point where we found it, opposite the corral, was about two miles north from the point where we found it in the other channels when we made our second trip; we found it the first time we
- 459 went down at the adobe holes, and the next time we went down we found it running at the Round Corral on Section 3; the Round Corral is northeasterly of Goose Lake; I don't know as any one indicated the route that I should take on that trip exactly; before we started Mr. Haggin wished me to go down through that country; he just gave the general directions to cross the whole country; he gave me the map of McCray's, which is the only map I took.

Q—I understand that you were never across these swamp lands until you made this first trip?

A—No, sir.



460 Q—Did you go down there to prepare yourself to be a witness in this case?

A—I went down there to see what the state of the country was.

Q—Did you go down there to prepare yourself to be a witness in this case?

A—Yes, sir; I went down there expecting to be a witness, and I wanted to see how the country appeared; I went down to see how the country actually was.

Q—Whose employment are you in?

A—Mr. Haggin's; I have been in his employment four years last February; the first time I went down  
461 there Mr. Jastro was with me.

Q—Who else was with you?

A—Mr. Cross and Mr. Barker.

E. D. CROSS,

A witness called for the defendant, being duly sworn, testified:

By Mr. FLOURNOY—Where do you reside?

A—In Bakersfield; I have lived in Kern County  
462 since 1865; I came to Bakersfield in 1869; have been making it my home ever since; I know Kern River and the Buena Vista Slough; I have been there very frequently.

Q—Are you acquainted with Old River?

A—I am; I have known it since 1869—have known it pretty well since then; I have had occasion to cross it frequently; I have crossed it a great many times during that length of time.

Q—At what point?

A—Of late years I have crossed down at the bridge;  
463 prior to that we used to cross at the Stine Crossing, southeast of here about five miles, I should judge; I crossed Old River in 1869 the first time; I think it was in December; I crossed it also in 1870, '71 and '72; I have crossed backwards and forwards every year, I think, since; in December, 1869, I crossed it at the old Stine Crossing; at that time there was considerable water in that place.

Q—Describe about where that crossing is?

A—I don't know now how to describe it; it is in a south-westerly direction from here, about five miles distant; I don't know whether I can point it out on the map or



464 not; I have not looked at the map; I don't know what section it is on; it has been known as Stine's Crossing ever since I came to the country here.

Q—Have you ever seen the river high at that crossing?

A—Yes, sir; it was pretty high in 1872, in July; about the 4th of July, 1872, I crossed there at the Stine Crossing; there was a great deal of water there at that time; quite a party of us crossed; several teams got in the water, and some of the parties had a good deal of difficulty in getting through.

Mr. GARBNER—That is Old River, is it?

465 A—Yes, sir.

Mr. FLOURNOY—Was it full at that time?

A—Yes, sir; I should think it was about as full as it would run.

Q—Have you ever crossed it at any other time that you can remember when it was very full?

466 A—Yes, sir; I remember one time crossing there with a party in 1876—'76, I think it was; I think it was in September; the water was very high at that time; I don't know the depth of the water; there were two vehicles bogged down there in making the crossing, in going through bed across the river; they had to carry the women folks out across the river, out of the wagons, at that time; I think it was in September; I won't be positive it was in 1876; I crossed Old River frequently from 1869 to 1876.

Q—You crossed New River frequently during the same time?

A—Yes, sir; I have crossed New River very frequently since that time; I have crossed nearly every year two or three times.

Q—Have you ever crossed New River at about the same time that you crossed Old River—about the same date?

467 A—Yes, sir; I have crossed and re-crossed both rivers at a time sometimes; that is, the same day.

Q—What is your judgment as to relative quantity of water carried along during those years, up to 1876, before the last headgate was put in Old River—as to the relative quantity of water carried by Old and New Rivers? From your observation, which carried themost?

A—From the first time I was there until the headgate was put in in 1877?

Q—Yes, sir.

A—I should think Old River would carry more water



468 than New River. That was my impression from crossing both streams.

Q—Have you ever crossed Old River at Anderson's Bridge?

A—Yes, sir; I have seen the water there running full, from bank to bank, a great many times; I don't remember exactly how often; I never paid any particular attention to it.

Q—How high did it come up on the bridge?

A—At one time when I crossed there it ran up to the stringers of the bridge; I have seen it frequently with the banks full there.

469 Q—What year was it that it came up to the stringers of the bridge, do you recollect?

A—I don't remember the year, but it was in the spring of the year sometime; I won't say positively what year the bridge was built; I can't recollect the exact time.

Q—How long have you known Buena Vista Slough, say from about where Wible's headquarters are to Tulare Lake, along in that Swamp Land District?

A—I crossed there, I think, in 1870, was the first time; I never paid much attention to it until 1875, I think it was, when I was Assistant Deputy Assessor;  
470 the first time that I crossed I crossed there in 1870.

Q—Do you remember where you crossed it?

A—The crossing was at the point of hills; I don't remember now, I think they called it the—it is the same crossing they call the Dixon Crossing; we came up right at the point of hills down there.

Q—About how far north of Wible's headquarters or Wible's Camp—is it south or north?

A—I should judge it was about four miles and a half south of the headquarters; I didn't cross the slough in 1870 anywhere north of the headquarters; I was down on the Swamp Land District north of Wible's headquarters in 1870; we went down there as far as the old Epperly hog camp—known as the Epperly hog camp—that was in the spring of 1870; there was water all through there on the swamp at that time; I didn't cross it at that year.  
471

Q—Did you ever cross that swamp land district?

A—Yes, sir; I have been across there several times; the first time that I remember to have crossed there, in March, 1876—April, I think it was—I went from the west side across to the east side, from about Epperly's. We went to the north of Epperly's hog camp and passed along through that way and crossed to the east side.



472 Q—How was the water in the swamp land at that time?

A—There was water all in through there. That was during the spring freshet.

Q—Did the water spread out over the swamp land district?

A—Yes, sir; I crossed there on horseback?

Q—Did you find any swimming water in crossing?

A—I did not cross it in any place where it was swimming; no, sir.

Q—Did you strike any channel in crossing?

473 A—No, sir; we didn't strike any channel in crossing; we went around in order to avoid the deep places.

Q—Did you cross by your own direction, or how did you happen to be able to get around?

A—I was in the company of Frank Epperly and several others; I can't say how deep the water was; there were some places deeper than others; in some places the water was shallow, according to the ground.

Q—When were you last across that swamp land district?

474 A—Last month, some time; I am not positive in regard to the date—it was some time between the fourteenth and the twentieth of April—Mr. Barker, Mr. Jastro, Capt. Taylor and myself were on that trip; I started from Bakersfield and first struck the slough down at Cole's Bridge, or at the county bridge there, it used to be; there was a great deal of water going into the lake there then at Cole's Bridge.

Q—Was it all running into the lake?

A—No, sir; some was running down the swamp; from Cole's we went down on the west side a piece and then crossed over and went to Dixon's, and staid all night there; from there we went out to the headquarters camp and went down the canal.

475 Q—Do you mean Wible's headquarters?

A—Yes, sir; in going to Wible's we crossed the slough on the levee.

Q—Was there any water in the canal?

A—Yes, sir.

Q—How much?

A—Oh, there was quite a head of water in the canal; I don't know how much; from Wible's headquarters we went down on the west side until we got to Crocker's hog camp, and from there we went across to the Round Corral.

Q—You went to Crocker's hog camp? Did you cross



476 directly from Crocker's hog camp? Did you strike any water there?

A—Yes, sir; we found sloughs of water all the way across from place to place; there was no current of water there; no stream of water that we had to cross.

Q—How was the water that you found?

A—Well, there was ponds in there from place to place; there was one place where there was water flowing, where we made a crossing; a little stream of water running from one lake to the other; I suppose I did not pay any particular attention to it; that was, I should judge, about opposite to Crocker's hog camp.

477 Q—From there, when you went to the Round Corral, did you find any water after crossing this at the Round Corral?

A—No, sir; from the Round Corral we went up on the east side as far as the Tule House; at the Tule House I found some water in the slough west of the Tule House; then we went up and crossed over to the west side; in crossing to the west side we saw water in the ponds along from place to place.

Q—Did you find any slough, going along across to the west from the Tule House?

478 A—Yes, sir; there is a part—there is quite a piece there; there is quite a deep slough, or partial channel, along there for five or six miles, I should judge; it runs north and south, I should judge, principally; it does not run quite north and south; we followed up that slough, went up around the slough and crossed over to the Round Corral and camped, and we staid over night at the Round Corral.

Q—You say you went around the slough?

A—Yes, sir.

Q—What kind of land did you find going around it?

A—In regard to quality?

479 Q—No, sir; as to the appearance—whether it was a slough, or a channel, or level land, or what?

A—It was level land, such as the principal portion of the swamp land through that country.

Q—Then what did you do after that? What camp was that?

A—Where the rodeoing party was camped; that is near the Round Corral; we camped there that night.

Q—That is on the west side?

A—No, sir; it is on this side.

Q—I am speaking of the western side now, going



480 from the tule slough at the Tule House. You said you went around the water there and went westerly?

A—Yes, sir; clear across the swamp.

Q—Where did you strike the margin of the swamp—at what point?

A—I cannot designate that point we crossed.

Q—What did you find on that trip going westward from the Tule House?

A—We found some ponds of water, and went around them—traveled around the ponds and went across to the opposite side of the swamp; then we recrossed the swamp to the Round Corral.

481 Q—Did you find any channel on your route back to the Round Corral?

A—Well, I suppose that is a channel; the channel is about five miles in length, I should judge.

Q—Was it a continuous channel?

A—For five miles.

Q—After the five miles was it?

A—No, sir; it spread out.

Q—Into a level country?

A—Well, yes, I should call it so; we stopped over night at the Round Corral, and the next morning we started out and went to Goose Lake, and  
482 from Goose Lake we went around and followed an enclosure; I don't know whose it was; I believe it is Miller & Lux's or Cox & Clark's; we went on up across the swamp and up above a piece and went on to the west side over to the Epperly hog ranch; we were going in a westerly direction; I have no idea on the map where it would be; I have never looked at the map; all that I know of that country is through seeing it.

Q—Do you mean Epperly's present camp or his old camp?

A—No, sir; it is his old camp; known now as the  
483 Dover Place, I believe.

Q—You followed in a westerly course?

A—Yes, sir.

Q—What did you see on that trip in the way of water?

A—There were little sloughs and ponds all the way along there; now and then we would come to a pond, and we would go around it.

Q—Was there any connected channel through there that you saw between those points?

A—No, sir; I don't think there was.

Q—Can you tell anything with reference to whether



484 there were any signs or marks of channels connecting these points that you crossed? Did you cross any channel at all?

A—No, sir; I don't consider that there were any connecting channels at all; it was all swampy, low land through there and in places we would find ponds of water; we went around those; we didn't go through the water where we could avoid it.

Q—What was the general appearance of the country on that trip through the swamp land district?

A—It was a body of tule swamp; that is all that I saw; all about the same nature through there; after reaching  
485 Dover's we came back again on the east side to what was called Broder Island.

Q—Did you find any channel between Dover's place and Broder Island?

A—Not that I could call a channel; no.

Q—What do you mean by that?

A—There were large ponds of water through there, but we went around all the ponds.

Q—Were there any connecting channels between those ponds? Did you cross any defined channels?

A—No, sir; nothing that I could call a defined channel.

486 Q—I mean where the water runs when it is up. Was the water over the swamp then or was it dry?

A—Where we was it was dry excepting the holes.

Q—Was there any defined channel between those holes?

A—I should not consider that there was; no, sir; not at low stages of water.

#### § Cross-examination of

487

E. D. CROSS.

By Mr. HOUGHTON. Q—You were frequently on Old River prior to 1876, before the last head gate was put in, and saw a great deal of water there. Where did that water go to after it passed by the Stine Crossing?

A—I suppose it ran into Kern Lake; I suppose it did—I never followed it up; I have never been down the Old River stream below the Consuelo, I believe. On any of those branches of Old River; I have never been much below the Consuelo during the time that the water was running in Old River; that must be five or



488 six miles from Kern Lake, I guess, as far as I was ever  
down; the Old River ran by the Consuelo and towards  
Kern Lake, in that direction; I never followed it up; I  
don't know where it did empty in reality.

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THURSDAY, May 5, 1881.

R. L. DIXON,

A witness for the defendants, being duly sworn, tes-  
489 tifies:

I reside on the Buena Vista Ranch; it is on Section  
20, T. 30, R. 25—the building; there is much more  
land attached to it; the lands go northward to the  
township line, and go south to the Cole Bridge, and  
along the line of hills, and it includes Sections 21, 28,  
and 27, and three-quarters of Section 34; the north-east  
quarter is left out; a portion of that land is inclosed;  
the house is in the centre of Section 20; the fence goes  
east along the north line of 21, one mile—to the north-  
east corner of Section 21—runs south to the south-east  
490 corner of 21, one mile; it runs east one mile to the  
north-east corner of 27; it runs south to the south-east  
corner of 27; it runs west to the quarter-section line  
between 27 and 34, half a mile—we call it the quarter-  
section line—then half a mile to the centre of Section  
34; then half a mile to the east line of 34; then half a  
mile to the southeast corner of Section 34; then it runs  
west to the hills, through Section 33—32, to that por-  
tion of 32 that is on the hills,—goes up to the  
public road across Buena Vista Slough and up the  
road. The western boundary of that tract is: ‘Com-  
491 mencing at the north-east corner of section 20; and it  
runs west along the north line of Section 20, a mile;  
along the line of 19, a mile; and then south to the  
south-west corner of Section 19; then it runs south to  
the slough on Section 19—the south-west corner of 19  
is just across the slough; and the ranch line runs on  
six miles further north than that; all of the land  
bounded by the slough on the west; and this fence,  
that I have described on the east, is included in this  
ranch, and more on the north; there is no fence along  
the slough—from where the fence crosses the slough;  
no fence along the slough, or along the foot of the



492 hills; I took up my residence on the ranch about the middle of July, 1875, and have lived there ever since; I have been around the tract embraced in this fence; I am familiar with the river that runs through there, and the slough; that is, Buena Vista Slough; I was on that slough in July, 1875; I have crossed the slough; the first time I recollect crossing it, I think, was in October, 1875.

Q—At what part did you cross? Can you point out on this map?

A—I think it was on Section 30 (refers to Map H); it was about that point; about the south-east corner of  
493 Section 30, T. 30 S, R. 25 E.

Q—Is that north of the middle branch of the river?

A—Do you designate that as the middle branch (Pointing to map H.)?

Q—What do you call that?

A—I have always called that the north branch; there are some flat sand sloughs lying along north of that—flat places; I think there is not any slough going from Kern River further north than that; I think it is only in high water the branches overflowed there near the mouth of it, and spreads out there in high water; I know where what is called Gage Slough is; I think that  
494 must be it (pointing it out on Map H); that is north of what I call the north fork of the river, and when I speak of the north fork of the river, I don't mean the Gage Slough at all; the point that I designate on the north-east quarter of Section 30, is very close to the mouth of what I term the north branch of the river; it is north of it and very close to it.

Q—How close? how far from it?

A—I think the deepest part of it comes within fifty yards, not exceeding fifty yards, from this crossing that I have always called my hog camp crossing; I was at  
495 this hog camp crossing about October, 1875. There was water at that crossing in October, 1875; about October; there was some water flowing in it. It was a flat sandy place, my recollection is, about thirty or forty feet wide. I am speaking of the crossing just north of the mouth of what I call the North Branch, and at my hog camp crossing; the crossing of the main slough. It was something like thirty or forty feet wide; I didn't pay any particular attention to it. I was attending to business and didn't pay any particular attention. The bottom of that slough at that time was not more than one or two feet below the surrounding country. I



- 496 don't think it exceeded two feet. I think if you put two feet of water in there it would overflow its banks; it would be up to the top of that channel. I don't think the water in there then was more than shoe-mouth deep, or something like that; just a little trickling water, three or four or five inches deep perhaps. There was no water at that time running down Kern River; I was there about that time, in the neighborhood of Tracy's Crossing; I used to cross it every week on business, going to Bakersfield. I mean the new Tracy Crossing on the Kern River; there was no water flowing by there at that time. At that time I also crossed what I call the
- 497 North Branch of Kern River, what you have been calling the Middle Branch. It was a dry channel; no water; I suppose it was 80 or 100 feet wide. I crossed it at several places; it varies; it was deeper at some places, where the sand is washed out; high banks a little ways, and then flat; except at special places, where it had washed out the banks, or washed out the holes; I don't think the bottom of that channel is over two feet below the level of the surrounding country. I have seen this point on the slough which I call my hog camp crossing of late date; I have seen it frequently of late; I last saw it during the month of April, 1881, the last time. The
- 498 channel is now much deeper there, and I think it is wider; I think it is nearly one-third wider than it was when I first saw it in about October, 1875; I think it is all of four feet deep now; may be deeper, although I didn't measure it; I think now it will carry four feet of water without overflowing its banks. I have been in the vicinity of Cole's Bridge while I have been living down there. The first time I saw it, I think, was early in January, 1876; I passed by it in going to the San Emidio Ranch, and returned by it the next day, or the day after. There were hands working there, but I
- 499 paid no particular attention to it when I passed the first time. I didn't get out of my buggy; apparently they were making a dam across the slough; did not go within fifty or sixty yards of where they were; I went where the hands were taking out dirt, but not where emptying it; that is at the same place where the bridge is now or near it; within a few feet of it. When I crossed returning, a day or two afterwards, I found an embankment entirely across the slough, and hands still working on it. When I returned I crossed the bridge. That embankment thrown across the slough was, I think, a large piece of



500 work, not such as could have been done between the time I first saw them at work and when I came back; I don't recollect the number of men or teams they had there, but I should say that the work done there would require five or six teams about ten days or two weeks—may be more; it is impossible to say; it would depend a great deal on the depth of water they commenced in; from my experience that sort of work will sink as fast as you put it in the water, and you have a good deal of work to do—much more than if there was no water; I think it was quite a lengthy job to accomplish that piece of work; it required men and money;

501 the dam was immediately south of the bridge; I got off and jumped from the bridge on the top of the dam; I don't know who was doing the work; after crossing the bridge I went up the levee that was called the road there; there was an embankment from that bridge easterly; I did not go to the end of it quite; went off before I got to the end; probably I went three-fourths of a mile, or a little more or less; I think that the levee extended east three-fourths of a mile at least, and I didn't see the end of it; at the end of that three-quarters of a mile I turned northward to go back to my ranch.

502 Q—Did you cross any channel or any water?

A—Yes, sir; I can approximate on this map about the course I took from Cole's Bridge; I can't trace it; starting from Cole's Bridge, I went about three-quarters of a mile eastward, then went off the levee, and then took a northwesterly course towards the ranch; there were holes of water; some water; I don't recollect whether it was continuous from near the levee, that we had to cross to go there to a Spaniard's hut that was in there; I crossed water somewhere near the levee; I cannot say that it was running; I did not observe it particularly because there was no difficulty in getting through only to avoid some holes in places; I came to other water; it was half a mile or more from the levee—may be three-fourths, I cannot tell you exactly; I came to what is now designated as the South Branch of Kern River; from my present knowledge of the country I know what I crossed was the South Branch; I found there a deep channel; the water was very swift; so much so that I objected to crossing it as we had wild horses in, and I was afraid to cross it, and proposed to go back and go up to Tracy's Crossing; we did cross it, however; the water was running towards

503



504 Cole's Bridge, in a southeasterly direction; after crossing that channel we kept on going the best way we could through towards the ranch; we directed our course by some timber we had on Sections 20 and 21, the line of 21-28; I crossed a channel there, what we call the North Branch—designated on Map H in yellow.

Mr. GARBER—That is what we have been calling the middle fork.

The WITNESS—I don't know the names that these streams were called; I have always called them myself on the ranch, and designated them in relation to my work as the north and south branch; those are all the  
 505 branches of the river that I consider were there; after reaching this branch, colored yellow on Map H, we found water there, and crossed it; I suppose the deepest part of it was a foot and a half. Running out, the deepest part was at the bank, and running out to the flat, where there was almost no bank, there is a sand bank that went down there; I could not tell how wide that foot and a half portion was; I went clear through there, but I don't think it struck the buggy-axle; and from that it went down to nothing; when we crossed the southern bank it had washed out; we got on a sand bank, and as we struck it we went down; we  
 506 could see that the water was not deep; on the other side we drove down; there was a current there; not much of a current; it was running along; I suppose it was forty feet wide; may be fifty; the average depth, I suppose, would be a foot to fifteen inches; I took particular notice of it north and of the width of it, the moment we went off the sandbank into the high water. It had been washed out; a high bank on the south side; we struck it there, saw that the water was not deep, and we went right into it; there was next to no bank on the other side—a flat bank; the water extended across on that bank; the current was like that of any ordinary  
 507 creek; the south branch, where we crossed it, was not so wide, but it was a great deal deeper, and a great deal swifter; it was very swift and rapid; I should think the south branch carried five or six times as much water as the other; it may be more than that; I had no means of measuring it. After crossing this channel, which is marked in yellow on this map, we went across through a portion of Section 21, and struck Section 20, or between 20 and 21, then across Gage Slough, where obliged to cross it; that is what has been called the North Fork; there is water in that place—a deep



508 slough or pond, as we call it; it was not running; there was no running water there; we then went to my house on Section 20; that slough is near the gate where we crossed it; near the east gate; my occupation was that of managing the Buena Vista Ranch; I farm there and irrigate. The most of the water for irrigating I took from what we called the Ranch Ditch, which is now designated on the map as the Joyce Ditch.

Q—Whereabouts is that?

Mr. HOUGHTON—Of course if the Court please, all of this matter about taking water through other ditches than those of defendants for irrigation is subject to  
509 exception we have made as to this evidence coming in.

The COURT—Certainly; it is so considered.

The WITNESS—I have taken water also out of the James and Dixon ditch for the ranch. The Joyce ditch takes the water from the Kern River (referring to map) at a point somewhere near the center of Section 23; I don't know how far from the center. It is below the point where the south branch branches from the other branch of the river. I first saw water in the Joyce ditch in 1875, when I went down there to assist my son, who was overrun with business; I went down there and we managed the ranch together until he  
510 went on his own ranch. His orders and mine were paramount on the ranch. My son is James Dixon, who has testified in this case before. He was there when I went there—using water. I have remained there ever since—never been absent but three or four times. I had occasion to go to the head of the Joyce ditch soon after I went to the ranch; I went there, I think it was about August—soon after, in 1875—that I went to the head of the Joyce and Dixon ditch. I found the water failing on the ranch, and I went up to the head of the ditch to see what was necessary to keep it in there; I  
511 found nearly all of the water flowing into the south branch of the river. There was very little flowing into what I call the north branch; not enough to fill my ditch—not enough to come into it. There was not enough to run from that point down the north channel to Buena Vista slough; it would be lost before it got there. I put in a weir of brush, hay and sand in the mouth of the south branch, across the mouth of the south branch, until I turned sufficient water down the north branch to fill my ditch. There was a good deal of water running down the south branch, but I didn't measure it; more than neces-



512 sary to fill my ditch—to fill two or three of them; two or three times more than the amount I turned in. I planted stakes at the mouth of the south fork, and made a brush dam just above its mouth so as to turn the water into the other branch of the river; and turned in sufficient quantity to answer my purposes. It was a good deal of work. As I would begin, the current would wash out my dam, you know—a strong current; I attempted it two or three times and I had to haul hay up there to enable me to do the work quick. I suppose the water there was then knee deep at the mouth of the South Fork; twenty or twenty-four inches.

513 At the head of the South Fork the water that went down the South Fork was fifty yards wide; the depth was over two feet; and then it ran out on the sandbar to nothing. The water was from twenty to twenty-four inches; I didn't measure it; I saw the bends in it and it was knee-deep running a strong current, and when we would get a place filled up, it would run in very rapidly and wash it out. A sandbar had accumulated across a portion of the mouth of the North branch. The sand had accumulated there until it made the bottom of the North Fork higher than the bottom of the South Fork. That was a natural accumulation from the washing of the river in high water. The dam that I put across the mouth of the South Fork did not remain there. The first high water that came on washed it out. Whenever the water would come up near the top of it, it would wash out. I think I have put a dam in there every year. I have put a dam in at one point or another, so as to turn the water into the North Fork. My ditch was four or five hundred yards below the mouth of this South Fork. I never measured it. The North Fork bends there.

514 Q—Whenever you went there in low water, did you find the water running in the south branch?

515 A—Always when there was water, sir, at a low stage of the water, the water would all go if I permitted it, into the south branch. There has to be a good stage of water, a fair stage of water to run into the north branch—what we call a medium stage. That has been the condition ever since I have known it, at that point.

Q—You have been upon it, you say, every year, and whenever you wanted to get water into your ditch you were obliged to close up the mouth of the south branch?

A—At low stages of water—I am of course speaking



516 of the low stages of water. I have used the water that ran into that ditch every year. There was no overflow over my ranch that I know of when I first went there in the year 1875, but it has been overflowed since then, a portion of it, whenever there is high water on the banks of the slough; on the banks of the slough in many places the water comes up and overflows; in 1878 was the first thing I called an overflow; in 1876 some water ran out of the low places in the slough; in 1876 there was an overflow, but not to the extent there was in 1878.

517 Q—Can you point out on the map, as near as you can remember, the portions that were overflowed in 1876?

518 A—I can point out some there where the water came, and to what extent; I don't know that I can do it particularly. The water came up, I first observed it on Section 24, which is now a part of the ranch; it came from the low slough there; then it came in on the southern part of Section 19; I mean that it backed up out of the slough on to Section 19. There was a low place, a low flat, down there somewhere about what we call the "fish-hole." There is where I first observed it, below the old Tracy ford on the slough; I observed the water coming up there. On Section 29 there was an overflow. Section 30 was nearly all under water; that is on the north side of the slough. I did not go across, and I do not know to what extent it was on the south side, or the west side of the slough. On the ranch side, pretty nearly all of Section 30 was under water, and a portion of 19 was under water. Section 32 was bound to be under water; Section 33 was bound to be under. I think that overflow was in March—February or March—I cannot recollect exactly the date, but it was February or March, in 1876; it was early in the year. It was previous to this overflow of 1876 that I saw the dam completely across Buena Vista Slough at Cole's bridge; I don't know how long that remained there; I never saw it afterwards. From my knowledge of the country I do not think it would have overflowed had the dam not been there. There was another overflow in 1878; that was in May, early in May, about the first I think it commenced; I know the first of May it was there, and it continued to get deeper.

519 Q—What was the extent of that overflow in 1878?

A—All of Section 24, to the levee, was under. That is, the levee on this map H; the levee of the Kern



520 Valley Water Company. That levee was built at that time, at least that part of it was built which is on the section line between 13 and 24, T. 30, R. 24. The whole of that section 24 was under. The water also ran across 19. I cannot tell you how much of 19, but my judgment was, there was more than half of 19 under.

Q—More than half of 19, according to the line you are pointing going, very nearly diagonally across?

A—Yes, sir. It also ran up in what I have heard in the Court Room, what you asked me to designate as Gage Slough, up past the center of Section 20, on that  
521 slough, backed up there beyond the house, going eastward in the slough; along what they call Gage Slough. In checking my land I had put a check under the fence, on the south line of Section 20. It lay against that and up to 29, and stopped at the salt grass ridge. All of Section 30, as far as I could see, was under water. I could not get down to it without a boat. I could not state about the west side. The hills there would prevent it from going on Section 30. It might go to the hills, I cannot tell. That portion of the Section  
522 30, east of the slough was bound to be under. Section 29, all except the salt grass ridge, was under. The salt grass ridge is on the north-east corner of the section. It was all over Section 28, and all over 29, and all over 27. I could not see 34, 33 or 32. That was down the slough. They were bound to be under when the water was over the others, it was bound to be, although I could not see it. I waded out in this water as far as I could go, waist deep. It was a general overflow everywhere. From my knowledge of the country about Sections 32 and 33, and around there, they were bound to be overflowed. They could not help it.

Q—Do you know whether there was any dam across  
523 Cole's bridge at that time; across where Cole's bridge crosses the slough, in 1878?

A—I noticed the highest water there in May. The levee was there up at the bridge. Whether the levee was completed under the bridge, or at the head-gate or whatever was there, I don't know. But it was stopped, when I saw it, it was already stopped up, so that the water flowing down Kern River could not go south from that point.

Q—Could not go into the lake. From your knowledge of the country, from having seen that levee,



524 bridge, dam, &c., had there been no levee, no bridge, and no dam there, would there have been that same overflow?

A—I don't think so, sir. I do not think it possible it could be to that extent, from my knowledge of the country—I have never run any levels—it would go into the lake.

Q—I am speaking of your general knowledge of that country.

A—It would flow south into the lakes, Buena Vista and Kern Lakes. I make my answer on that from my knowledge of how I see the water flowing.

525 Q—Are those the only times that you have known any overflows down there?

A—No, sir. There was another overflow in 1880. I made a levee to protect myself against this overflow. Commenced at the northwest corner of Section 19, running down about three-fourths of a mile, thence running easterly to the southwest corner of Section 20. My check is under the fence and along the fence at Section 20, on that line, on the south line of Section 20. In checking my land I had made my check under the fence, and it answered the purpose of a levee. From there I ran eastwardly to the river, to my head-gate from one salt-grass ridge to the other, so as to protect the ranch from this overflow, or from any recurrence of the overflow.

526 The water came up to my levee all along Section 19. I did not go out to examine how far on 29, but it came to the corner. It touched the levee on the southeast corner of 20. Then the water, after laying at that point, decreased, and, from a break in the levee at Cole's Bridge, the levee breaking there, relieved my levee. The levee at Cole's Bridge broke on the eastern part, and relieved my levee, and it drained off that body of water. It fell 4 inches in less than 24 hours, where it lay against my levee. It went down 4 inches.

527 Q—Going to the lake?

A—Yes, sir; the water must have been obliged to flow that way, because after it broke, it relieved my levee. In 24 hours it had fallen, where it lay against my levee, 4 inches.

Q—Have you seen that break you speak of? At what time was that break?

A—Pretty soon after the high water came up in 1880. I think it was in April, 1880, that the high water came up. The high water came down on the 4th



528 of April. I recollect the date that it came down. It was very soon after that that it lay against my levee on Section 19. I don't know of my own knowledge that the levee broke at the time at Cole's Bridge. I didn't see it. The water subsided suddenly against my levee. I had seen that levee at Cole's this year, in April. It is open at Cole's Bridge.

Q—Have you seen generally the amount of water that is coming down the river at this time, since that during April and May?

A—I saw it before, and I have seen it since. I have crossed the river several times before and several times since I saw the break in the levee at Cole's Bridge. I first saw it about the middle of April, 1881.

Q—Then you know generally, I understand, the quantity of water that has been flowing in the river about these times, at present; were that bridge closed, that levee at Cole's Bridge closed, from your information of that country, your knowledge of the condition of the water, &c., could you say that any portion of that land would now be overflowed?

A—Yes, sir; it would overflow some of my land. I think that opening in the levee is what prevents an overflow there at present.

530 Q—You have been along that Buena Vista Slough when, I understood you to say, there was water along there at different places, when there was no water running in the river; have you ever found any water along the slough there, between Cole's and Wibie's headquarters, when the water was not running in the river?

A—The first time I ever went to the slough, I found some water running in there. I described what I saw in October, 1875. I saw there was water running in the slough; not much, shoe-mouth deep, perhaps, at the Hog Camp Crossing. At that time there was no water running in the river at Tracy's Hog Camp Crossing. That crossing was just north of where the North Fork runs into Buena Vista Slough. The water was running very slowly. It was running a continuous stream when I crossed it just there at my crossing on Buena Vista Slough.

Q—You have been about there a great deal from time to time?

A—I have been there every year, and in 1878 I was there a great deal. My hog camp was there, and the cattle went down there. Previous to that I would only go down there in the fall of the year to hunt.



532 Q—Have you ever, during any of those periods when the water has ceased at Tracy's, noticed any change in the water at the slough?

A—Since the levee has been built at Cole's Bridge there is never any water in there except in pools—in the holes in the slough—in the deep places. I have never seen any running in it except when the water was running down the river. I have been fishing down there in those holes that I speak of.

Q—Did you ever notice any change in the water in them?

533 A—Yes, sir; I have been fishing, and noticed a change in the water in the fall of the year.

Q—Is that from water that ran down the river?

A—No, sir. The water that rises seems to rise until it will get over the level of the ground between the two ponds, and will flow from one to the other.

Q—Then, when there is no water in the river, there are times when the water will rise in those holes and flow from one pond to the other?

534 A—Yes, sir; at times, when there is no water running down the river, you can go across dry-shod one day, and the next day going down you find a little stream of water crossing between, where it was dry before.

Q—In that interim I understand there will be no water running down the river?

A—No, sir; no water coming down the river. In the fall of the year I believe the water will rise in those pools. When it begins to get cold it will gradually rise, without any other reason than the evaporation ceasing, and begin to flow in little trickling streams from one to the other.

535 Q—Is that the same stream you were speaking of, a trickling stream of that kind, when you were there in October, 1875?

A—There was more then, sir; more than I have seen since until very lately. I have used water on that ranch also from the James and Dixon Canal; I use it from there now. I have known the James and Dixon Canal from the time I came on the ranch. It has not been used by me all of the time since then; it was by others.

Q—Has it been used ever since then, do you know?

A—Not every year.

Q—In what year?

A—In 1879 it was not used that I know of. There was very little water in 1879. I mean it was not



536 used, simply because the water was scarce. Every year when there has been water that canal has been used by some one. Since I have known that canal there has never been any change that I know of in the amount of water that has been diverted from the river through the canal. The sand would wash in, and it would be taken out; there has been no artificial change at all. I will explain that, by saying that the Johnson head-gate, and the James and Dixon Canal head-gate, are close together; and both canals use the Johnson Slough as a means of carrying the water. Sometimes it is more convenient, and we can take a  
 537 large body of water in the Johnson ditch; and we take it into that; I am doing that now. It saves a great deal of work at the James and Dixon head gate, because we can get it in easier. It is merely a matter of convenience between the parties who own the two, and by mutual consent. I first saw the head of the Johnson ditch soon after I came to this country, in 1875. The water has been used through that ditch too. I crossed those ditches in 1875. I crossed it at one time above the point where they join and run into the slough, and I saw the water in both of them when I crossed them. I know the Railroad Ditch. That heads 300 or  
 538 400 yards above the Pioneer Bridge or the Pioneer Ditch. I had a good deal to do with that ditch. I saw to the construction of it. I wrote the notice, and paid a good deal of money out on it. The construction was commenced by myself and my son, James Dixon.

Q—When did you construct it?

A—At the present location? We changed the location of it, or the point of diversion. My recollection is that we finished that ditch just before Christmas, 1875, that is, the ditch part of it. I think the head-gate was not put in until afterwards. The head-gate  
 439 was put in not long afterwards; as quick afterwards as we could get the work done.

Q—From the time that you began it, until you finished it, did you continue the work on it, until you had completed it?

A—That is the way I understand it, sir. We engaged a party to make the head-gate. As soon as we could get the lumber, then I think it was put in. In the construction of the ditch proper, outside of the head-gate, I don't think the work stopped at all. There was no delay in it. When it was constructed, I think the water was turned in before the head-gate was put in.



540 Cross-examination of

R. L. DIXON.

The notice of appropriation was posted at the first point of diversion between the Pioneer Ditch and what is called Mr. Haggin's Goose Lake Ditch; we commenced excavating there. We did not do a great deal of work there at that point; we spent a good deal of money. There was a difficulty between Mr. Haggin and ourselves; obstacles were thrown in the way continually. We did all we could. I cannot say at what time we stopped. We made all the haste we could, so as to save the time, save the ditch, save the stream of water. I cannot tell you exactly how long we did work there at the point where our notice of appropriation was posted; I don't even know the date of the notice. I don't think we worked at that point over a month, but I cannot state the time; it may have been longer or may have been shorter.

541 Q—How far did you construct the canal between the Pioneer and Goose Lake?

A—We crowded it. We didn't have very far to go to get into Goose Lake Slough. We kept one man or two men with scrapers, and as fast as they took out dirt, the dirt out of the Goose Lake Ditch was thrown into it; we had that difficulty. Finally a house was built across our claim. I don't know how long it was; I cannot tell how long we were about that point. I know the ditch where it now stands was finished just before Christmas. I don't recollect how long it took to do that work after we commenced on it; it was done by contract, and John Miller, I think, or his brother, or perhaps his cousin, Mr. Davis, had the contract. The first work done between the Pioneer and the Goose Lake Ditch was at the point where the notice of appropriation was posted. The point where we eventually constructed the canal, I think was 200 or 300 yards from that point.

543 Q—Was there anything between the first point and the second?

A—Yes, sir; the Goose Lake Ditch and the Wible Ditch. There are two ditches between that point where we first commenced and the point where we eventually constructed the canal.

Q—Whose names were signed to the notice that you say you wrote?



544 A—I cannot recollect, sir; I don't think my name was signed to it; I don't recollect, however; I don't recollect now who signed the names that were signed to it; I could tell you, perhaps, if I saw the paper; I may have signed some of them, but I don't recollect.

[Defendants' Exhibit G is shown to witness.]

Mr. HOUGHTON. Q—Is that the notice you refer to?

A—Yes, sir; I think it is.

Q—Are any of the signatures to that notice in your handwriting?

A—Yes, sir; four of them, those of M. E. Gwin, T. W. Gwin, J. P. Robertson and H. A. Reading.  
545 Those four are in my handwriting. I may have seen that notice put up, I am not certain if I have ever seen it since until now, I don't remember.

Q—What condition was that notice in when it left your hands as regards erasures?

A—When it left my hands it must have been just as it was when written in ink. I suppose there was no erasures in it. It might have been altered in my presence, I think it was. I am not certain. But I was not present when this was posted. I don't remember anything about the change or alteration of that instrument.

546 Q—Do you know whose handwriting that is in?

A—There are three letters “O. N. E,” and the figure 30 and the figure 6. It is impossible for me to say whose handwriting they are in. I cannot tell, I see some signatures on that paper that I did not put on, and I don't know who did. I cannot distinguish the figures which I wrote in the instrument which have been erased. I do not remember the place that I designated here as the place of appropriation. As to the place of appropriation, I was not familiar with the numbers of the land at that time. I have not seen that notice since I wrote it, unless I saw it posted there. I  
547 might have seen it posted there. Since that time I have never seen it until—that is the paper I saw in Court, a day or two ago. I have never seen it since. I have never had my hands on it till now.

Q—Where does what is known as the Gage Slough leave the river.

A—I can approximate it sir. I cannot tell you exactly. [The witness refers to map H.] That is what I call the South Fork, and that is what I call the North Fork. I don't know whether this is intended to represent a ditch or this slough that they call Gage Slough.



548 It is about that point below my head-gate; below the ranch head-gate, in what you call the Joyce ditch, it is below that, perhaps half a mile, may be a little more. I cannot tell exactly how far it is. I suppose that slough, where it leaves the river is 25 or 30 feet wide, where it passes through Section 20, a portion of it is a deep slough with perpendicular banks, was when I went there, now worn down by cattle, I suppose 20 steps wide in places, and narrower in others; something like 20 yards wide, but I cannot measure it accurately. It is about that.

Q—How deep is it there?

549 A—Four or five feet deep, perhaps in some places more than that. I think there are some places in that slough 10 feet deep. I have a head-gate at the end of this slough. When I first went there, below that point running west, there was no slough.

Q—Haven't you constructed your levee that is west of your house, across this slough?

A—Yes, sir. This slough where I constructed that levee across is, I suppose, 20 feet wide at the top, and goes down to a rounding bottom, 4 or 5 feet at the bottom; and it was 4 or 5 feet deep at that point.

550 Q—What effect has that levee upon turning the water that runs down that slough?

A—There is no water running down that slough, except what I turned into it since I have been there. The waste water out of my ditch runs into that flat on Section 21; it gathers into this slough. That levee stops the water running down the slough which is turned out of my ditch; it turns it around and it comes out again, if there is enough of it, and goes to the corner of Section 19. I let it out there and it goes on 24, down the Wible Levee. If it gathers there, I cut my levee there and let it out. It goes down the levee. I don't know where it goes to then.

551 Q—Where do the waters running in that slough continue to before you put your levee across it?

A—There was no water ever running in that slough except what I turned out of my ditch since I have been there. The water that I turned out of my ditch ran into a pond on about the southeast corner of Sec. 24; and when the pond overflows, it connects with the slough. If the slough is higher than the pond, it runs into the pond; and if the pond is full before the slough is, it runs out again, and runs out through here, [referring to map H], into Buena Vista Slough. That is



552 quite a large pond. It would be 150 or 200 yards around the bank; 200 yards, I mean, in circumference. It is irregular in shape. Where the Gage Slough connects with the river. I suppose it is a foot deep; hardly that. I have never seen any water run from the river into the head of that Gage Slough.

Q—Have you ever seen any water run from the river into that slough in any way?

A—Yes, sir.

Q—When?

553 A—When the river is high and overflows the banks between the old Ranch Ditch and that slough, it runs over the banks on what is known as the Stock place in Section 22, and runs into the slough.

Q—What is there, if anything, on the bank of the river at the mouth of that slough that prevents the water from running into it?

554 A—The former owners of that land put a small levee across the mouth of it, right on the bank of the river. I added to it at one time. I don't know how high it is—2½ feet, I suppose, and about the width of the slough in length. It is not a couple of hundred yards long. I suppose 50 yards would be the extent of it from one end to the other. It goes beyond the slough on both sides. That levee is at the head of the slough, where the slough meets the river. I don't know when Mr. Gage put that in there. I found it there. I made the additions to it in 1878. The levee, as built by Mr. Gage, was built from bank to bank, and a little beyond it; and I have added perhaps 10 or 15 feet on each side. I might have increased the height of it, but not much.

Q—Is that levee high enough and long enough to prevent any water from running into that slough at all?

555 A—It could not go into the mouth of it except at very high water; it goes over the bank above it and runs into the slough.

Q—You speak of putting obstructions into the South Fork where it leaves the main river, just above your head-gate, to throw more water into the North Fork. What kind of obstructions did you put in there?

A—Brush, hay, sand and stakes.

Q—Where would you commence?

A—Sometimes at one point of it and sometimes at another; sometimes a little above the mouth on the south bank of the river, and bring it down so as to throw the current to the north bank of the river.



556 Q—Then, how far would you extend that obstruction towards your head-gate?

A—At one time I extended it out to the south bank—to both banks.

Q—Would you extend that obstruction across into the North Fork, and across the North Fork?

A—No, sir; my object was to throw the water into the North Fork.

Q—Would you extend that a part of the way across the North Fork?

A—No, sir; not when I was damming the South Fork.

557 Q—Have you ever placed any obstructions of any kind across the North Fork?

A—Yes, sir; for the purpose of turning water into the ditch when it was low.

Q—You put this across the North Fork, too?

558 A—I took out the ditch and turned it in. When I had a ditch full of water, I would stop it there and get it all in; making a ditch of the river bed. I think the first time I put any obstructions into the North Fork was in 1879. The North Fork makes a little island immediately in front of the ditch; and I put it from the bank of that island above. Made a wing dam, to throw the water into the mouth of the ditch. I would force that on to the bank near the head of the ditch there.

Q—So, then, you made an obstruction clear across the North Fork?

559 A—Yes, sir. There was not water enough to fill the ditch in low water. That obstruction that I put in the North Fork in 1879, was of brush, sand and willow sticks. It only remained until the first flow of water came to wash it out. It was a temporary thing. Whenever the water would come these slight obstructions washed away directly. It was simply to turn the water into the head of the ditch when it was low. I don't think I have put any obstructions across the North Fork since then. I think there are no obstructions there now. I have not been to the mouth of the ditch this year.

Q—Did you see anything there last year?

A—The old stakes were there, sir.

Q—Didn't those stakes extend very nearly across the North Fork?

A—To that little island?

Q—Yes, sir.

A—They did, sir; when I last saw them. They were



560 the same ones put there in 1879. The stakes would stand some time.

Q—Then the water did not wash away the obstruction you put there in 1879?

A—It didn't wash away all. The stakes were driven in, and could not be so easily washed out. The stakes would not prevent any water passing; when I last saw this obstruction, some of the stakes were there, in 1879; were still standing in the North Fork. I could not say how many were put in. There might have been 20 or 30. Half of them might have been gone. Some of them were gone, I know, when I last saw it.

561 My recollection is that some of them were gone, but I can not tell how many. I should say that half, or more, were gone, when I saw it. I never removed any of them. I let the water remove whatever was removed. I had that work done in 1879, and for the ranch, for Mr. Haggin. The first flood I saw there was in the early part of 1876.

Q—You say you started from your house, and went out in the water some distance?

A—Not in 1876. I didn't say so. I said in 1878.

Q—How far did you go in 1878?

562 A—I went till the water got so deep. I was afraid to go further. I didn't like to go over my head. I went waist deep in it. The house is in the middle of Sec. 20. I went from there out through Sec. 28, and down into Sec. 29, around the salt-grass ridge that is in Sec. 29, and came up on the salt-grass ridge towards the west.

Q—How far on Sec. 29 did you go?

A—Here is the point; I started from here. I came up here [referring to Map H]; came up until the water got too deep, and then I went down along this way. I cannot tell you how far I went, because it was all covered with water, all a sheet of water.

563 Q—Did you go to the North Fork of the river?

A—I could not tell whether I got to it or not. It was all a sheet of water. The water got too deep for me, and I kept down, skirting the deep water, and came in on salt grass ridges, on 29.

Q—You say that in 1879, you only had water enough down there by throwing it all in, to fill your ditch?

A—At the time that I made that dam, I think that was the latter part of June. My recollection of the year 1879 is, there was very little water in the river any where, that was a very dry year, less water than any year since I have been here.



564 Q—How was it about any other canals taking it out above you?

A—I don't know. I was not at any canals above, except where I crossed the bridge, at the Pioneer. I know that other canals were taking water out of the river, that is, I suppose I do. I was not at any head-gate connected with the river, except the Pioneer and those immediately by it. The Wible ditch, the Dixon ditch, and the Railroad ditch. I never saw any other head-gate on the river. Well, the Johnson ditch and James and Dixon ditch, I had to pass those ditches. They had some water that year, the Johnson ditch had, and the 565 James and Dixon had some in it, but not enough for me to use. I did not attempt to do anything with it. There was very little water at the ranch, I don't know how much.

Q—Wasn't it a serious complaint on your part, that the parties above, were taking all of the water out of the river?

A—No, sir, not at all. It was Mr. Haggin's ranch, and if he was taking the water, I had no right to complain.

Q—That is, if he was taking all of the water above for his other ranches, you had no right to complain that you could not get any on the lower ranch? 566

A—Of course not. It was not my interest, it was his.

Q—Then, that was the reason you did not complain about it, wasn't it?

A—I don't know that I had any reason at all about it. It was no affair of mine. A part of every year the water failed to come into that ditch. There was a part of 1875, that there was no water in the ditch. There was a part of 1876, that there was no water in the ditch. I won't be positive about that, but I am pretty certain. In 1877, a 567 part of the year, there was no water in the ditch. In 1880, a part of the time there was no water in the ditch. I suppose they were taking water out of the river above me, during all of those years, but I never visited them, never inquired. I crossed several of them in coming from my house up here. I have seen water running in some of them, and sometimes some of them would have no water in them.

Q—When did Mr. Haggin acquire that Buena Vista ranch?

A—I think I delivered the possession of it to Mr.



568 Haggin the 1st or 2d of July, 1877, and I have the management of it now, and working for Mr. Haggin, and have been ever since that time, and have superintended that property ever since.

Mr. HOUGHTON—I understood you to say that you made no complaint in early years, or during the last three or four years, by reason of not getting water down there when others were taking it out above?

A—I did not say so.

Q—I so understood you.

A—I did not intend to say so.

569 Q—Then it *has* been a cause of complaint with you, that the water has been appropriated above and you have not got any in your canal?

A—Previous to 1877, I was on the fight for water with Mr. Livermore and Mr. Haggin, all of the time, in the fall of the year; in the spring I had water. I made a crop of grain every year till 1879. Previous to 1877 I was always on the fight with them for water. Since 1877, when Mr. Haggin acquired the land, I have had no interest in it. If the water did not come down it was not my lookout; I could not make a crop without it.

570

Re-direct examination of

R. L. DIXON.

Mr. HAGGIN. Q—How is the bed of the river, Judge, of the Gage Slough, on the other side of the levee from the river?

571 A—A stranger would pass that place without ever knowing he had passed any slough. It is all flat there; there is a little bank on the north side of it, a short way; but in passing over the country a stranger would never know he had passed any slough. When the water rises in it 6, 8, or 10 inches, it flows to the south; it has no bank, is all flat; it runs out into the branch of the river again, the north branch. Had that levee not been put there, in ordinary stages of water the water would not have run into the Gage Slough, no more than it would over the bank. Ever since I have been there, at high stage of water it would come in there; and it comes over the bank on both sides of it, above it and below it.

Q—You started to describe how the water got into the Gage Slough in later days, from your ditch. Now,



572 give me a full description of what the course of the water is that is turned into the slough from your ditch.

A—I bring the water down from the river, the head-gate, through Sec. 22, and on the N. E. quarter of Sec. 21, where I had a head-gate and ditches opening from it—one ditch opened from it there; and I have a waste-gate just above that head-gate into the flat that is designated as Gage Slough. It is nothing but a flat. And when anything is the matter with my ditch or head-gates below, I shut the water off in the head-gate and open this waste-gate, and that throws the water  
573 into this flat and it runs down through 21. In following the flat, the quantity of water there has in places cut a little channel since I have been there. It runs into Sec. 20, and out of it. No water has run from the river through the Gage Slough that I know of since I have been there, except what I have turned in from the waste-gate. The water that I have turned in since I have been there, has made a change in the size and depth of the Gage Slough, the point where I have turned it in. It has cut out in places in Sec. 21, after it passes my head-gate in the large part of the slough; that I have made a reservoir of. When I let out a  
574 body of water there it has cut the slough further to the west side of Sec. 20; it has cut it deep. I used to cross it with a buggy, but I cannot cross now on account of it being washed out. The large body of water which ran south constantly would cut it out. All of my water that I brought through my ditch when I had done irrigating, I would let out. I have used that slough by these head-gates in Sec. 20. I turned the water in there for cattle purposes and for irrigating purposes. I have two head-gates in that slough. I used that slough as a part of a system of canals there,  
575 irrigating all of the south side of Sec. 20.

Q—Where was that levee that you said was constructed across the slough, with reference to the point where the water is turned in from your head-gate? Is that levee east from the point where the water is turned in, or is it west?

A—It is a long ways west of it. That levee is down on 19, in the southeast quarter, I suppose, of 19; low down on 19. The object of putting that levee in was to protect the ranch from the overflow from the levees built by Mr. Wible.

Q—Which way would the water come against that levee; from the east or from the west.



576 A—A part of the water seems to back up. You get down about 19, and the water flows out of this pond that what they call the Gage Slough empties into. It goes north; when it gets over the bank, it overflows directly against the levee, and then runs north from that, until it strikes the Wible Levee, and then runs down that levee to the slough again. My object in constructing this levee there was to prevent the water they dammed up there from coming upon the ranch and destroying it; to prevent it coming from the west to the east, and from running up the slough.

577 Q—You spoke of having, in 1879, put in a brush dam at the mouth of your ditch, out to the little island. How far from the north bank of the stream there is this little island?

578 A—Within twenty steps of it. I dammed it up to the river; the length of that brush dam I suppose was 40 yards. I took it diagonally across the stream and ran it up. First, I started a wing-dam to the little island, and came towards the ditch; the force of the water was so small that I could not force it in, and then I brought it round below the ditch and joined it to the north bank. In ordinary stages of the water, when the water was low, to get the water in there at all I always had to force it towards the north bank. The water never will run and flow into the ditch unless it is forced along to about the north bank; I am obliged to force it there to get it into the ditch; I had already forced it over to the north before reaching this island, and I merely put this dam over from the island to collect what I had already forced over there. There was so little water that I was obliged to confine it all in order to get anything in that ditch. That was in June, 1879, and very soon after that the water stopped. We had more water previously, in 1879; we did not have plenty of water, but there was water down there. The rise came down, I think, in the latter part of May or the first of June, and lasted through June; and it was the last of June or the first of July that I did this work. After that they had no more water that year; no more water in the river. The water was running for about a month; most all the water ran in the south branch; some water came in the north branch; not a great deal. There was high water in nearly all the early part of the year 1876, and up to the latter part of July there was high water in the river. I could not cross it anywhere but at the ferry, up to the latter part of July; I could



580 not cross it except at the ferry. In 1878 there was a great deal of water; it was as high as in 1876; during all of the month of May it was as high as it was at any time in 1876, according to my recollection. I am speaking of it at my head-gate, because there is where I observed it. There was plenty of water passing me in 1880, a large quantity; it overflowed and came against my levee on 19, and came up to the S. E. corner of Section 20. Plenty of water now, sir; that is, the last time I was there. I have not been there since last week; plenty then. The notice, Exhibit G, I think I wrote at Buena Vista Ranch; that was ten miles or  
581 more from where it was posted. I did not write it on the ground where it was posted. At that time I was not familiar with the country. There was a levee across the head of Gage Slough when I first went there; my branch ditch emptied into the Gage Slough. In Section 21 it is a flat place, more than a slough—it is a flat place.

Q—How deep is that flat place?

A—The salt grass ridge rising on the east of Sec. 21, Township 30, Range 25. On the east of that point there is a salt grass ridge, and then ridges on 21 to the west of that place. In between the ridges there were  
582 little depressions where the water runs that is turned out of the waste-gate. It is cut more or less deeper. After the water leaves the waste-gate there it runs west and runs down to Sec. 20. From just below the waste-gate up to where what is called the slough goes into 21; it is a flat place—a flat expanse—some 80, or 90, or 100 yards or more; and there is a depression in that flat which they call Gage Slough, and trees grow in it.

Q—How deep below the level of the surrounding country is that?

A—Very slight. When the water comes in there  
583 it spreads out over there 200 or 300 yards wide. If there is a great deal of water turned in it overflows the banks and flows down through Sec. 28, and flows over this way, southward, and the redundancy of water comes through and down this place, and would get down to this flat and spread all over there—all through that section of the country. I have a levee across there to prevent that spreading into Sec. 21. This levee crosses on the north side of the slough, or rather it cuts across one of the flats. One flat goes down to the salt-grass ridges on Sec. 28, and the other part comes up to this head-gate.



584 Q—I speak now of between Section 21 and the mouth of the slough there, [showing]. Would the water go into the slough if there had never been any levee placed there?

A—It spreads out. At first there is very little or no bank from the river on the south, until you struck into Sec. 21, where you strike salt-grass ridges, which turns it off into Sec. 28, going southward and westward. If any water that overflows the banks of the river gets into that slough, then there is a continuous sheet of water from that to Secs. 28 and 22. If there is any water in the slough it overflows the river to get in into it. This levee was across there when I went there, but it was not a great deal higher than the river.

Re-cross-examination of

R. L. DIXON,

I think I said that the Gage Slough, where it leaves the river, was 20 or 30 yards wide; something like that.

Q—How far did it continue going west that width before it spreads out?

586 A—The water flows right out of it at once right over there from that point on the south.

Q—And that continues from that point, how far?

A—Sometimes there is a little bank for 20 steps, and then there is no more, it is all spread out again to the south.

Q—And then I understand that continues until you reach the last line of Sec. 20?

A—No, sir; I don't say that. When you come to Secs. 28 and 21, where I put a levee across that flat, that flat continues and goes down to 28.

587 Q—How far does that flat continue after leaving where the water spreads out 2 or 3 hundred yards wide?

A—On Section 22 there are salt grass ridges; also on Section 21; and they are about 150 yards apart, and a portion of that flat goes on down to that head-gate, this waste-gate. The other side it can flow and spread all over the country. I don't know whether that channel is correctly laid down on Map H, or not; I have never surveyed it, and don't know. There are various little places washed out since I went there, and I have let water in there that I didn't see there first. There is no channel continuing from the east side of Section



588 21, down to Buena Vista Slough. The break in it is in Section 21; there is also a break in Section 20. I suppose that break represented on the map in Section 21 is correct, but I don't know. The break in Section 20 is the depression that I ran across with my buggy all of the time; it is a continuation of that slough; it is cut out a great deal more by the water turned from the head-gate. When I went there it was very little of a slough, but some water was gathering to run there. There is another break in Section 20, but it is not very long, 150 yards, may be; then it goes into the slough again. I never estimated the length of the break in Section 21; 589 it is in brush and weeds; I suppose it is about 200 or 300 yards. There was a flat, sandy place, that the water I have turned out has washed out, and it was spread out there. I have seen it 200 or 300 yards wide, water all along there to the east and south of the center of Sec. 21. I have seen the whole bottom there covered with water from the waste-gate. I never took water from the Gage Slough into the canal. I don't know when the canal was first constructed. I was not there. I never have taken any from it. I have dammed it off. I think there was no water in the river after June or July, 1879. I refer to the point of 590 the river at my head-gate. In 1878 the water ceased running at my head-gate in August, I think. It ceased running in 1880, the latter part of August, I think. It may have been in September, but I think the latter part of August. I cannot say whether the water now at its present stage would run into the Gage Slough or not, if the levee were not there. It is all in there over the banks above, where there is no obstruction.

Q—Wouldn't it run into the natural channel of Gage Slough, before it would run over the banks above it?

591 A—It might do so; I have never seen the water flow into the Gage Slough. I have not been up there for about a year, and there never has been any water run into that slough since I have been at the Buena Vista Ranch. None has ever run into the mouth of the slough. All of the water that has been in there has come from the river above. There has been a levee ever since I have been there. I don't know that. If the levee were away now, the water would run into that slough. There is a great deal of sand on this side of the river. The crossing which I spoke of and called



592 the crossing at my hog camp, on Buena Vista Slough, was on Sec. 30. I think that is traced for the crossing on Map H. I cannot say that that Map H is correct; I don't know it. I know that this slough comes in just above the crossing.

Q—I show you a photograph, Exhibit No. 31. Do you recognize that as being the place where New River comes into Buena Vista Slough; where the middle, or north channel, as you call it, comes into Buena Vista Slough?

A—No, sir; I cannot. I am not able to trace it.

593 Q—Have you ever been on the west side, looking directly east, up the middle channel or North Fork, as you call it, of New River.

A—I have crossed at the place I indicate frequently, but I never noticed anything of that kind. I have been where that north channel empties into Buena Vista Slough. There are two or three places where it empties in. I would never recognize that photograph as the point where the main stream empties into Buena Vista Slough. I was there last about the middle of April, 1881.

A. GLENN.

594

A witness called for the defendants being duly sworn, testified as follows:

Mr. FLOURNOY—Have you any knowledge of the Swamp Land District, between Tulare and Buena Vista Lakes?

A—Yes, sir; I have been there frequently, up and down. I was first in that section of the country in 1857; about that time; I was there until 1860.

Q—Were you there after 1860?

595 A—Frequently. I moved in 1860 from below Visalia, over to the South Fork of Kern River, and I was frequently back there attending to stock for old man Dunlap. I had his stock over there on the South Fork. I was down there in 1860, 1861 and 1862; and 1863 I was in San Bernardino County. In 1865 and 1866, I was in Havilah. In 1867, I was back here. I was back there attending stock in 1873 or 1874. In 1856, I came there from Los Angeles, and took charge of Mr. Dunlap's stock in and around Visalia, about four miles. In 1857, I was around the head of Tulare Lake, I think that was in the spring, sometime between May and June. I don't recollect exactly the time.



596 Q—How far were you above the North end of the Lake?

A—I suppose I was probably 12 or 15 miles, somewhere along there.

Q—The south end, I mean.

A—That is what I thought. That is what we call the head of the lake.

Q—Did you ever cross that country there at the head of the lake?

A—Yes, sir. I have been there. I have been through different places, I guess, 4, 5 or 6 miles, may be above the head of the lake. I crossed at that time at the  
597 road. The road ran from Visalia to San Luis Obispo. As well as I recollect, I think it crossed 5 or 6 miles somewhere along there above the head of the lake, south of the head of the lake. I crossed on the road in 1857. I also crossed it there in 1859. That is, I was through the country there and in the road. I traveled across that road, I went across. That was the road from Visalia to San Luis Obispo at that time.

Q—Did you cross any water on that road?

A—Well, none later than 1861 and '62.

Q—Was there any dry channel or washout that you saw?

598 A—I don't think there was. Of course I didn't pay much attention to it. I was just crossing on horseback.

Q—You were down there in the spring of '57, and you were there in '58 and '59 and '60?

A—Yes, sir; I was there every year when I lived below Visalia. I was there in the fall and spring generally.

Q—Did you ever see any water or sheet of water connecting Buena Vista Lake with Tulare Lake?

A—Yes, sir. The first time that I saw that was in  
599 1862; it was in either 1861 or '62: 1862, I think; and again in 1867 I saw it.

Q—Did you ever see a connection of water between these two lakes at any other time?

A—No, sir; I did not live around there at all; I was merely traveling around through the country. I was down through there every fall when I was around in the country, excepting the years I tell you. I was in San Bernardino and Havilah. I have frequently been up in the swamp country south of the San Luis Obispo road.

Q—Did you ever cross the swamp above that?



600 A—I have been out in it quite a ways; I never went entirely across.

Q—What is the character of the country in that Swamp Land District?

A—It is a level country.

Q—How is the water in it at different seasons of the year?

601 A—I have been there when there was plenty of water; and I have been there again when it just stood in pools or ponds. When there was plenty of water it would be spread out for a mile or two wide, I suppose. We always called it a swamp, and that is what it was always termed. I never lived there; I was there very frequently, when I would cross it and was in it. I would most generally go below to where Mr. Broder used to live, and he had some Spaniards there who understood going through, and I frequently followed them. When I first knew it, in 1857, the swamp did not extend down as far as the road that I have spoken of, and crossed from Visalia to San Luis Obispo. There was not any swamp for some distance; I don't recollect how far, but it was some distance before you would see any tules. That was a kind of high sage brush and alkali country, clear across. I never have been in that  
602 country when the water would rise in the swamp above when the water came down, nor when it came down. It was either spread over the country when I was there, or else it was dried up and in holes.

Q—How was it about these holes?—were there connecting channels between them?

A—I don't think so; at the time, of course, I did not pay any particular attention.

Q—What direction did those holes or ponds take? North or south, or east or west, or what was the general direction of them; or did they have any general direction?  
603

A—When you found a kind of a long valley, it was most generally the north and south in direction. There were a great many or several round holes. Of course when I was riding through the country, I never expected to be called to tell anything certainly, and I never paid any attention to it, because I was hunting for stock.

Q—It was always called a swamp country?

A—We called it that. I never heard it called a water course or a stream of water. I was attending to Mr. Dunlap's cattle down in there. That was my business.



604 (No Cross-Examination.)

CALVIN DUNLAP,

A witness called for Defendants and duly sworn, testified as follows:

Q—Have you any acquaintance with the Buena Vista Slough country?

A—Some little; yes, sir.

605 Q—The swamp land district between Tulare Lake and Buena Vista Lake?

A—Yes, sir. The first recollection I have of it was in 1861. I may have been there sooner; but I was small, and I don't remember. In 1861, I was 13 or 14 years old. I was then looking out for stock for my father down there. My father had stock running around there. I have been there from 1861 pretty nearly every year until 1874; in the Spring and Fall.

Q—Did you ever see the waters connected from Buena Vista to Tulare Lakes?

606 A—Yes, sir; I think I did, in 1861 and '62, and 1867. I never saw them connected at any other time that I know of.

Q—What part of the swamp land district were you on in these years?

607 A—We generally went from the valley where we lived down the Tule River and around the lake, up above Goose Lake, up this way; around Tulare Lake, and coming above Goose Lake right around the lake. Our range was from Goose Lake down to Tulare Lake, and probably up this side away. I crossed that swamp land district once in 1867, when the water was up; when it was high. It was in the Spring and the water was running. As well as I remember, we stripped naked—me and two more young fellows with me; and in places we would swim, and in other places it was not more than knee deep to the horses. At that time I was not acquainted with the district only up and down the side. I have crossed it when the water was in holes. We were down, as well as I remember, some three or four miles from Broder's; near Broder's Camp, about Goose Lake somewhere, where we crossed. That was in the Fall; and we crossed it there. The water was standing in kind of holes, or pools, or sloughs, up and down, as well as I remember.



608 Q—How was it about the channels that you would have to pass?

A—In places there was no channel; and in places pools occurring in the middle of the road, and across, that looked like channels between the places where there was dry land coming across. The water was in pools in the Fall when we were there.

Q—Was there any connecting channel between those holes?

A—Not that I know of.

609 Q—No sign by which you could tell where a channel was, in crossing?

A—No, sir; I think not. I have probably been across there a dozen times or more during those years.

Cross-Examination of

CALVIN DUNLAP.

I was born in 1847; the 29th of December. The point that I speak of at Broder's Camp, was somewhere near Goose Lake, about three or five miles from where we camped, generally, below Broder's Camp; right about Goose Lake, somewhere. We camped about three to five miles down there.

610 Q—What years were you speaking of, in crossing this slough?

A—We crossed in the Spring of 1867 when the water was pretty high, when we swam, and in 1861 and 1862. We swam it in 1861 and 1862. Those are the years that I have reference to when the water was high, and we had to swim. I have crossed it other years in the Fall, nearly every Fall since then; that is, up to 1874.

VINING BARKER,

611 A witness called for defendant, being duly sworn, testified as follows:

I reside on Kern Island, Kern county. I came here in 1870.

Q—Have you been on that body of swamp land north of Wible's Camp and south of Tulare Lake?

A—I have. I was along up the swamp in 1872. I would not cross it. That was in April. I did not cross it. I don't remember that I ever went across it until last month, in April. I crossed the swamp on Buena Vista Slough, down at Cole's Bridge, or the bridge at



- 612 Cole's. I crossed the slough at Tracy's crossing, and went up to Dixon's. Tracy's crossing was on the slough, I think. I won't be certain where the old crossing used to be. After leaving Dixon's I went down to Wible's headquarters' camp, and then we went down on the west side of the slough. I saw water at Wible's headquarters. There was some water there. I went along the levee at Wible's headquarters, and then drove down along the levee to Dover's camp. There was water in the canal all the way down. Had no difficulty in getting along there. We went a part of the way on the bank of the canal, and
- 613 a part of the way we went between the ditch and the swamp land. We were on the bank of the canal beyond Dover's. We went down nearly to the end of the canal; clear to the end. There was water about five miles below Dover's camp. The water ceased there. The ditch was broken, and it was running into the swamp; it was running from there into the swamp. There was no gate there. It was a break in the ditch. There was a very good head of water, not a very large head—I could not say how much—running out there. We did not go into the swamp at Dover's. We kept on the west side down. After we got down to the end of the ditch, we struck
- 614 down to the swamp, to Crocker's camp, I believe it is. It is at the edge of the swamp; on the west side.

Q—Where did you go from Crocker's camp?

A—We crossed from there to what is called round corral. That is on the east side of the swamp. I should judge it was down the swamp some three or four miles, further down than the east—I don't know that it is that far; probably two miles straight across from his camp. I think we were going a little north of east.

Q—What was the appearance of the swamp land crossing there—the general appearance of that land, in going across there?

- 615 A—We struck some water on the west side of the swamp. I think we crossed water in three different places, going across on the west side of the swamp.

Q—Was that water running?

A—It appeared to be going down the swamp towards Tulare Lake. It was the same water, I should judge, that we saw coming out of the ditch or break.

Q—Was it confined or in a channel?

A—No, sir; I could not say it was.

Q—Did you see any channel from there at all?



616 A—We struck depressions and places, and some places we struck where there were channels.

Q—Continuous channels?

A—I could not say that they were.

Q—In going across there, would you say that there was a channel through that body of swamp land, a continuous channel?

A—No, sir; I could not. We struck channels in places, and some places we followed them where they would run north, and there would be a little depression; but I would not say there was a channel. After reaching round corral, we went up on the east side of the swamp to the Tule House.

Q—Did you find any channel there?

A—There was a channel there in front of the Tule House, with water in it. I don't think it was running. From the Tule House we went up the channel about—I don't know how far—probably a quarter of a mile; and recrossed to the west side of the swamp.

Q—Did you find any continuous channel in crossing to the west side of the swamp?

A—When we struck down from the west side and went down, we crossed a little water there. When we crossed from the Tule House right at the east side, there was some water where we crossed, probably three or four inches deep; mud and water. It was not running.

Q—Did you see the end of these channels?

A—I did not follow that through to the end of it, I think; just crossed over it.

Q—In going beyond, did you find any other channel?

A—We struck a channel on the west side. We followed that down about, I should judge, two or three miles—two miles. At the end of that two or three miles it seemed to run out, and we crossed over to the high lands on the west side. After going to the high lands we recrossed back to the east side, and struck on the east side, probably two or three miles above the round corral. Did not go back the same course. We struck a southeasterly course back.

Q—Did you find any channel north and south, going back to the corrals?

A—We did strike one or two places that we drove around, in the middle of the swamp.

Q—It appeared to have no continuous channel?

A—No, sir. We stayed all night at the round corral. The next day we went to Goose Lake, and struck in



620 below Miller & Lux's fence there to headquarters. We went west of the swamp, above Dover's Camp. We crossed over to the west again, and came out there at Dover's House.

Q—Did you find any channel in going through there?

A—There was a slough that crossed that channel on the west side as we went over, with a little water in it; no running water.

Q—How large a slough was that?

A—Well, where we crossed it there was quite a large slough; that is, it was not deep but—

Q (Interrupting)—Did you see the end of that?

621 A—We did not follow that there, when we crossed it, to the end. When we recrossed, on the same side, towards Broder Island, we did not cross the same slough; not on the west side. After reaching Dover's Camp we recrossed the slough and came out on Broder Island.

Q—From Dover's Camp to Broder Island, did you find any channel?

A—We did cross some water on the west side of the slough, or rather north.

Q—Was that water in a channel?

622 A—I don't know whether it was in a channel. It was in a hole, and there was a depth of three or four inches of water. I tried to water my horse in it, but it was mud and water. It was not running. From Broder Island we crossed to Button Willow Slough.

Q—From wandering around the swamp land, did you find throughout the whole length of it; did you find any continuous channel running from south to north, or north to south?

A—No, sir.

Q—Or in any direction?

623 A—I don't think there was. By Button Willow Slough, I mean Goose Lake Slough; it is east and north of this swamp land, outside the body of it.

Re-cross-Examination of

VINING BARKER.

I made this trip about the 14th or 15th of April of this year. Mr. Jastro, Cross and Taylor were with me. We had a buggy and buckboard. Ed. Cross went with me, and Jastro and Taylor were together the most of the time. We would change a little. My business is that of farmer and stock raiser. I am not in the employment of



- 624 Mr. Haggin. I was three or four years ago. Have not been recently. Have not been in the employ of the defendant, the Kern River Land and Canal Company, recently. I had a contract from that company last Winter, which I got through with about one month ago. It was not a very extensive contract. I was there five or six months. I have been in the employ of Mr. Haggin before.

FRIDAY, MAY 6, 1881.

WILLIAM SOUTHER,

625

Being called as a witness for the defendant and sworn testified as follows:

- I reside in San Bernardino county. Have lived in Kern county. Came here with my family in 1874; first came to this county in 1872; remained only a short time; came back in 1873; then again in 1874. I was here in 1873, six or eight days, in the neighborhood of Bakersfield; then next came in 1874—March 3d, I believe, I arrived at Bakersfield. I came from San Felipe, in San Benito county, with teams. I came across from San Felipe, and landed on the San Joaquin plains, at Panoche Creek. From there the next point of note was Buena Vista Slough. I followed up the slough to what is called Tracy's crossing. That was in March, 1874, I crossed there.

Q—Any water there then?

A—Yes, sir.

Q—Running?

- A—Well, there was not much motion to the water. The water appeared to be quite still. After crossing there I steered from there to what is called the Alejandro place. It was situated some three or four miles this side of Tracy's crossing, at the edge of the high land. It was in the vicinity of Kern River. There was one branch of Kern River, that was termed the south branch of Kern River, runs right along about the line of the ranch—the western line of the ranch. The ranch is to the east of that branch. In going from Tracy's crossing to the Alejandro place, I crossed two branches of what is called New River.

627

Q—Can you point out on this map "H" about the course that you took? Tracy's crossing is marked here in Section 24. You spoke of Tracy's crossing. Do you mean the old Tracy crossing?



628 A—I don't know that I know the difference in the names of the crossings. This crossing was near the Tule House, where the road, in early days, went round a mountain. This crossing was on the slough. The west side of the slough is where this Tule House was. There was a Tule House standing just south of the crossing where I crossed. The Tule House stood some quarter of mile, or over a quarter of a mile, to the south of where I crossed the river. It was called Tracy's crossing. I suppose that to be the point, there (referring to the map). I crossed these different branches, and there I came out, as near as I can tell by this map "H"—it must have been on Section 27, where I bogged down with one of my teams. I was loaded heavily with barley. There was water to the west and water to the east of me.

Q—In Section 27, Township 30, Range 25, isn't it?

A—Yes, I think, from the looks of the country that is about the shape of the river. There is a branch I crossed down there. After crossing over that branch we bogged in there before we got to another branch. I take this to be the other stream (referring to the map). After crossing at Tracy's crossing, I went in a northeasterly direction. From the marks and indications on the map, I think I went to Section 19—the south half, perhaps, of Section 19; then to the north half of 20, and to the south half of 28, crossing a cut, or a branch, leading from the central branch, apparently, to the south branch. From there I went on into Section 27. Then I crossed the east branch, as I would term it, or south—whatever it is termed here. The branch there runs in a southwesterly direction—southeast—to a branch that runs along the line of the Alejandro ranch. I think that the Alejandro ranch must have been on Section 26. In going across there I crossed several channels, or places where water had run. There was but little or no water, if I remember right.

631 There was no water except in these two. I don't remember that I crossed any water except that.

Q—By these two, which do you mean?

A—I mean the two last; one in 28 and in 27. I mean the one running down to and dividing 28 and 27.

Q—Which course did these two last channels seem to take?

A—These channels run in a southerly direction. Before coming to those two, we crossed some dry channels that had sand in them—indications that water had run there.



632 Q—Well, on this map, there is in the neighborhood of 19, shortly after leaving Tracy's crossing, a channel marked. Do you remember crossing one shortly after leaving Tracy's crossing?

A—Well, we crossed something of that character, perhaps several. I don't remember particularly about it. It has been some time. In going from 19, the first channel that I remember is on Section 29; the middle fork. That channel was a dry, sandy channel at the time. There was no water running in it. Then we crossed the channel between 27 and 28, and that had water in it. There is where we bogged; right alongside of that water bogged the teams down. I perhaps would not remember it so particularly had it not been for that. There was considerable water running there. Where I crossed it it was running nearly a due south course.

Q—Then, the last channel that you crossed, did you find much water?

A—Yes, sir. The most of the water we crossed after leaving the main Buena Vista Slough at Tracy's crossing, was at that last channel. Perhaps three or four times as much water was running in this channel at the time I crossed; that is the last channel; the one near the Alejandro ranch. The house was some distance in the field. All the water seemed to be running southward. It was all running down in that direction. The first stream was running nearly due south; the other was running in a southwesterly course. I have since seen those channels where I found the water, and I know where they empty. They empty in at Cole's bridge, on the Buena Vista Slough, into the Buena Vista Slough. After crossing the channels I then came to Panama; crossed water before getting to Panama. Panama is a little southwest from this point; south of west from here.

635 Q—Can you point out on this map about where it is? (Defendant produces a map, which is marked by the Reporter "Defendant's Map 'I'")

Mr. HAGGIN—We are merely using this map as a diagram, I will prove the map afterwards.

THE COURT—You are using it as a diagram?

Mr. HAGGIN—Merely as a diagram to fix the relative positions and get certain prominent points. (Plaintiff's counsel then objected to the use of the map, on the ground that the map should first be proved to be correct, before the witness is allowed to look at the map; that the



636 map amounts to a leading question as to the different localities represented.)

THE COURT—I see no objection to using this map simply as a diagram; of course it is not in evidence until it is proved; until then the Court will not consider it any further than as a diagram; I have a discretion as to the order of proof; I will overrule the objection.

Mr. HOUGHTON—We will note an exception on behalf of plaintiffs.

Mr. HAGGIN. Q—Do you know where the town of Panama is located?

637 A—I can describe the place; I don't know the section. It is in T. 29 or T. 30. It lies to the west of this town, about three or three and a half miles, may be four, in that neighborhood.

Q—Will you look at this map and see whether you can point out where it is, without any reference to any marks made on the map at all, except as to the general features of the country?

The WITNESS—(After examining the map.) It appears to be right directly east from Canfield's on Section 9. 1, 2, 3, 4, 5, 6, miles south of this town. Further than I thought.

638 Mr. HOUGHTON—Then you could not have located that without the map? You would have located that 3 miles south of town—southwest of town?

A—I have not thought anything about the distance; come to think it over, I know it is more than 3 miles. I have traveled it, probably, 500 times. It is directly east of Canfield, near Panama Slough. I can locate it by memory. Mr. Crocker had a ranch there that was called—the town or place there was formerly called Panama, his ranch.

639 Mr. HAGGIN. Q—You stated that you went from the Alejandro place to Panama. I understood you to say before you reached Panama, you had crossed some water. Whereabouts; what water did you cross?

A—I crossed a stream called Old River, at Judge Inman's, just below Judge Inman's place at that time. Where the Government troops were formerly stationed. I don't know what Section, but there were indications of an old residence; trees planted. I was informed that that was where the Government troops had been stationed. There was quite a stream of water there. It varied in depth. There were places where it was two or three feet. There was a dam right there where they had taken



640 the water out of the canal on the south side of the river just at that point. In the vicinity of Panama, I found also, quite a stream called the Panama Slough. From Panama Slough I went to Livermore Ranch afterwards, and from there to the Cotton Ranch, and afterwards to the Brink Ranch, which is on Section 12, I believe, in Township 30, Range 27. I did not move my affairs to the Livermore Ranch until I came down in the Fall. In November I had a station there. My main camp was here at the Cotton Ranch. I set some teams to work on the Livermore Ranch; in June, I think, commenced 641 work on the Kern Island Canal, conducting water to the ranch. I made that canal. I began at two points on the township line of Township 29, between 29 and 30. I think it was a little in Section 31, running across to this township line. I followed up towards the lake. That was in the Spring of 1874 I did that work. No part of that canal was in existence when I came here. That is, what is termed the Livermore Canal. There was no part of that portion of the canal in existence. I laid it out, had it surveyed and made it. It is the south portion of the Kern Island. There was a portion of the Kern Island that was made when I came 642 here, running from the South Fork, at what we called Capt Steven's house to the mill; and emptied into the South Fork again below the mill. What I did was a continuation of the previous work which had been done, extending the canal.

Q—Do you remember the size of that canal which you constructed?

A—The design, I believe, was 25 feet on that portion at the bottom. It was laid out wider than that on the top. The top was four feet wider than I anticipated, because I intended building that canal, a large portion of it from the effects of the water. I had a large plow built 643 in the first place for the purpose of cutting five feet. With that plow drawn by 40 yoke of oxen, and a scraper that followed that was about 30 feet long, and 12 or 15 feet wide. We took the dirt out and turned the water into it, and it deepened the banks. In places there was six or seven feet fall, in other places not so much. I mean 6 or 7 feet to the mile. My plan was to run out these banks and to let the water do the work.

Q—Do the work? Did it accomplish it?

A—It did.

Q—How deep was the canal made?



- 644 A—There are places from two to three feet deep, and in places it was six or seven. We ran through high ground. It carried a large amount of water. The water in the South Fork when I started was about four feet deep. It was, I think, about April when I commenced there. I mean, rather, the 3d of March. I was there a month or so; perhaps six weeks. I don't remember the time. It was either in April or May. I went home in June to San Felipe; that is, I built a portion of that work; I didn't build the entire canal. I built sufficient to turn the water in. I turned the water in, and turned
- 645 in all of the water of South Fork at that point into the canal. It all went down the canal. That was in 1874; in the spring; about April or May. I think in April. That is when we commenced. It was May before we finished, perhaps in June. I don't remember the exact time I went home. From the time we commenced it, we continued work on it without stopping. The time that I was here I had teams at work all the time on that canal after commencing it, until I returned home. Then I left the ox team here, and they did some work at Section 6, Township 31; commenced running a line through Sections 6, 7, 18, 17 and 20; the
- 646 upper end of the Livermore ranch at that time. In July, I think, I returned here and put in a head-gate. The water was not running in it when I came back. When I came back the water had become low in the river. I crossed the river in coming back on the stage road, just above where the county bridge is, at the old Visalia crossing, above the railroad bridge. There was quite a body of water running through there in July, 1874. I think—as well as I remember, it came up—a portion of it—about to the hubs of the stage. From that running down, of course, to the edge of the river, this side, which was lower. From the other side it was, perhaps, 200 feet or
- 647 150 feet. It was all the way from one foot to two and a half feet deep. I first went to live on the Livermore ranch in November, 1874. I built my house on Section 20, in Township 31, Range 28. That is correctly represented upon map I. I continued to reside there, building canals, farming, stock raising, etc. I have been in the business of stock raising since 1852 in this State to a considerable extent, and I have been farming all my life, more or less. I was engaged in mining for three or four years when I first came to California, in 1849. I engaged in mining and followed that business until 1852. I re-



648 turned home and brought my family out, and have been in this State farming ever since.

Q—When you first went down there, you say, you began farming and canal building. What canal building were you doing?

A—The first was the Kern Island and its tributaries. I constructed a system of tributaries or distributing ditches.

Q—Was there any water on any portion of that ranch during your residence there, other than what was brought down by the canal or the South Fork?

649 A—Well, the South Fork brought the water. It came from the channel of the South Fork. When we first went down there, the ranch only ran to the township line, between 31 and 32. Afterwards we connected those sections which head the lake, in Township 32, to the ranch. Then the water lay all around those lands in that township during the time it was high, more or less. It covered all of the lands in Township 32, Range 28, say as far west as we went; the waters from the lake, at times; it would not cover all of those lands all of the time. Of course, sometimes the lake was low.

Q—Were you about that portion of the Livermore ranch when the waters of the lake came up on to the land?

650 A—Yes; was all over them, more or less. A part of my business was to see where the water was, so as to construct some mode of reclamation. I built first a canal, the Kern Island Canal, in 1874 and 1875. I then threw a levee around Kern Lake. That was in 1875 that the levee was built. The canal was constructed in 1874 and '5. There has been more or less work done every year since, repairing, &c, head-gates and so on. I threw a levee around the head or north end of Kern Lake, from the township line, the range line between 27 and 28. I commenced this canal in 1874. In 1875 I reconstructed  
651 in part the whole line, from the fact that I had turned the water in to do the work on the north end. I then went to work on the south end, and built that clear to the lake. I built this levee in order to procure title to those lands in Swamp Land District 111. The law, I believe, in the case, required that there be a canal built, and that the lake should be leveed in order to bring title to the lands of Swamp Land District 111. In the Spring of 1875, I ran a levee leading from this canal around the head of Kern Lake. It was constructed along the line of the water. We commenced that levee within a quarter of a mile of the township line between 31 and 32,



652 the southwest corner, Ranges 27 and 28, the southwest corner of Township 31, Range 28, and ran south through Section 6, Township 32, south of the line between Townships 31 and 32 about a quarter of a mile, and it continued nearly three miles, following the line of the water as close as we could get. Our course was to run as near as we could to the point of water, where it came farthest into the raneh. I think that levee terminated on Sec. 8, at the high land in T. 32, R. 28. In the Spring of 1876, I constructed another levee. It was south of the other levee, ranging from half to three quarters of a mile. In some places it ran over a mile south, still following the water.

653 Q—Can you show me where that levee was, on this map "I?"

A—This is the line of that levee (referring to map "I." Let me see. We commenced about the middle of Sec. 6, the west line, and ran south south-east, crossing near the corner of Sec. 5, 6, 7, 8, running down through 8 to the highland at the southwest corner.

Q—There is a levee marked there on that map as Souther's levee. Is that it, from your knowledge of the country?

654 A—Yes, sir; that is it.

Q—The position there is correctly represented?

A—It is.

Mr. McALLISTER. Q—Does that correctly represent both levees or one?

A—One—the last one. The first one was inside of that and plowed up.

Mr. McALLISTER—It is correctly represented on map I, this levee?

655 A—Yes, sir; marked in red. The purpose for which these levees were made was to keep the water from coming up on the land; to hold the water back. The waters of the lake came up on our lands. The first levee was plowed up; a portion of it. I farmed, or tried to farm, a good deal of that land down in there. It flooded me out and I had to quit. In December, 1875, I sent a man by the name of Ober down to Buena Vista Slough, for the purpose of putting a dam to the south side of the county bridge, on the township line. The county bridge was situated in the township line between 30 and 31, and across Buena Vista Slough. That was at Cole's or Cole's Bridge, as it is called. December 26th I sent Ober there, I constructed a levee there, and built a dam



656 across the slough to keep the water from going back into the lake and on the ranch. The water that emptied from Kern River through that channel that I described a little while ago, and flowed back into the lake, my object was to stop that flow. I stopped it for a time. That dam was completed in January, 1876; I mean the dam at Cole's Crossing. Prior to the construction of this dam at Cole's Crossing I went down there to the place where it was constructed. There was water there then. It was running to the lake, was running into the lake, and that was what led me to the conclusion that the dam would stop it. The dam was completed in January, 1876, and remained for a time—until March.

Mr. HOUGHTON—I understand, if the Court please, this all goes in subject to the exception as to the construction of these canals and levees?

The COURT—Yes, sir.

Mr. McALLISTER—The dam remained until March, 1876, I understand?

A—Yes.

Mr. HAGGIN—What became of it in March, 1876?

658 A—It broke. I cannot tell you how it broke. I suppose the water broke it. That was the supposition, at least. The water raised outside five or six feet higher than it was on the lake side, and the dam gave away, and the bridge sank in the middle. I don't remember whether I saw the dam after it was finished and before it broke or not. I can't call it to mind. After it broke I did not reconstruct it. When I constructed it—when I constructed that dam, I constructed it south of the bridge. There was a road running across this bridge—the county road. It followed from the uplands clear through on that township line, where the road was laid out to go on the west side. There was a levee there, previous to my constructing it. There was a levee thrown up from the end of the bridge back to the high land. There was some thrown up on both sides. The west side came in further, near the bank, the bluff bank.

659 Q—How far back from the bridge eastward did that levee extend?

A—There was more or less work done for a mile. I did not participate in any way in the construction of this levee. I went down at Mr. Livermore's request, with Mr. Crocker and Mr. Parks—to select the line, the point of starting, &c. of the canal of the Kern Valley Water Com-



660 pany. Mr. Parks and Mr. Crocker went with me—all with the same purpose. Mr. Parks was the engineer. We were all acting conjointly together. I was asked by Mr. Livermore to go down with them to make this selection. The work was his, and he and I were engaged in other works; and he asked me to go down with them, as he was not here. That was in 1876, about September, I think, that I went down with Mr. Parks and Crocker. There was not any canal constructed, nor anything done toward the construction of a canal, down there at that time. That was the first. It was about September, 1876. I would not be positive as to the day or month; 661 I think in September. From that time on I was in that country there, more or less, and saw what work was going on. The first work there was by Mr. Wible. After the arrangements were made, he was selected as foreman of that work; and he went to work building the canal from the point selected to start from, which was, I believe, on Sections 14 or 15, somewhere right about that point, running in a southwest course—the line of the canal. The canal commenced near the corner of Sections 13 and 14, and ran along the line of the swamp land outside. I have seen the canal in later years. It is the same canal; in the same place.

662 Q—What was the first work done in that connection?

A—The first work that was commenced—a camp was made right there at that point, and the excavation of that part of the canal was commenced first. Then there was a force put on, on this side and a levee raised, thrown up, on this side, and a temporary bridge thrown across the slough at that point above. The purpose of that levee was to conduct the water coming down through the river to that point; the river and slough along the outer line of the Swamp Land District 121. That levee was designed to turn the water from the slough. Afterwards, when the work was nearer completion, there was 663 a dam thrown into the slough in the main channel where the water previously had run, a portion of it, and turned all the water that came down; took all the water that came down at that point of the slough. The water afterwards broke the levee below. But at that point I believe there was never any break that occurred to my knowledge—while I was here, at least. There was a head-gate put in at Cole's bridge in 1877; in the Fall of 1877 and the Spring of 1878; I don't remember now whether it was completed in 1877; I think, however, it



664 was. And there was work done on Cole's levee at that bridge. The old road levee was reconstructed and made higher and stronger. I think that was done in the latter part of 1877. There may have been some work done in 1878. There were two purposes in making that levee; one was for the County road, in order that the travel might pass over it easily, and the levee was thrown up to make a roadway. The next purpose was to hold the water coming down these branches, that I formerly described, from going back into Buena Vista Lake, or to turn them in as the case might require. This gate was put in, that I speak of—a large head-gate—for that purpose, for the purpose of handling the water. That gate was put in for the purpose of letting the waters go into the lake, or of preventing them from going to the lake, or to let them out of the lake, just as the case might require. The water could not be let out of the lakes until it first got into the lake, of course. From my knowledge of New River, and my experience here in this country, New River—all these branches that I have described, and which we crossed there, came down and ran in right at that point above the bridge, or near the bridge, within a few feet of it, into Buena Vista Slough. It turns and runs back into the lake whenever the water is low enough in these lakes, of course, to allow the water to run. Usually there is a large amount of evaporation over so much territory as these lakes cover. The evaporation is very great. Hence they are always low in the Fall of the year, and the water continues to flow into these lakes until they are filled to the water level before it turns to run back the other way.

Q—Then the water of the river there runs into the lakes first and fills them, and then is turned off, you say, from the lakes northward; you didn't say northward, but you say the other way?

667 A—Well, the other way. Of course the lakes lie to the south and east, and the general direction of the slough leading from this point down to where the "Kern Valley Water Company's Works" commence, is some four or five miles, and the water turns and runs towards these works, when it comes to find its level, back into the lake.

Q—Until the lakes are full, the water runs to the lakes?

A—Principally, yes, sir.

Q—Then I understand you to say that the levee and



668 gate and dam there was constructed with a view for the purpose of turning the water from the lake, making them run down the other way?

A—Yes, sir; that was in part to act as a causeway to handle the water; canals, levee, etc., are built to have command of the water, generally speaking.

Q—Did you ever farm on that country, or do you know generally that body of swamp land between Wible's headquarters and Tulare Lake; do you know that body of swamp land?

A—I do. I attempted to farm down there. I sowed some grain in the spring of '78, east line of canal which  
669 runs from just above Wible's headquarters to the north. It was on Section 2—a portion of it. The other sections I don't remember. I can show you the point on this map. The line of the canal is constructed there. That portion of Sections 2 and 11 [referring to map]. It was on the southwest quarter of 2.

[The witness is shown Map "D," and is asked if he ever saw it before].

Q—Did you ever see that map before, Mr. Souther? [Map D, shown to the witness].

A—I saw this map, or one just like it. I could not swear that is the map. We had one down there. Mr.  
670 Livermore used to carry a map just like that. He and I would go up and down with the map. It was made by Mr. McCray. I take this to be either that map or a copy of it. I used a copy of that map in connection with my work down there: one just like it, at least. It might have been this, but I think not. I think Mr. Livermore kept this, or one like it. Wible had one, Livermore had one, and I had one.

Q—Can you now designate on that map what portion of those lands you cultivated or sowed?

A—It was in the south half; you may say, a portion  
671 of the south half of Section 2. It runs a little over the south-west quarter. Possibly I might have run over that line. I don't remember now exactly. Sections 11 and 2. I said the south-west quarter of Section 2. I might have run over the corner into the south-east quarter here. I think not, however. There was some water in there that troubled us. I think it was all east of that line, of the central line. I sowed grain on that portion of Section 11, east of the canal, on Section 11. It would be a portion of the east half. I sowed these lands I speak of in



672 grain. Then I went down on Sec. 3 and 33, if I remember rightly, ran through all these sections and examined the lines and corners as marked by Mr. McCray. I think in Sec. 3 I ran down; left Sec. 2 and ran out. My roadway is there yet. I think it runs, leaving the canal at Sec. 2, where the east line of the canal runs through. I ran through Sec. 3 and off to the line striking the canal about a mile below the corner of Sec. 33 and 34, the township line as well as the section line. I followed that section line then to my camp, which was on Buena Vista Slough, at the end of the cut which is marked Central cut.

673 Q—What was the cut? Is that cut there in your land?

A—The design of that cut was to convey the waters across the flat. In the slough there was a break; a place wide and flat. There was no slough to amount to anything. I designed running this water to my canal, which I did. I made a roadway, and on either side of that roadway, I had a canal to conduct the water down along these lands, to throw it on the lands or off the lands.

Q—Could the water run through the slough at that point?

674 A—Well, it spread. The water, when it got to this point, the water spread all over the country.

Q—What point is that?

675 A—This upper point of this cut marked "Central cut," that terminated on the line between Sec. 3 and 4, and ran down to the north-east corner of Sec. 5. When the water flowed down this slough here—this crooked slough here, as you see marked on the map—and got to that point, that is, the south-east point of the central cut, as marked on Map D, it spread to the south. The water came from off here, a large portion of it. Some of it went along down there through this land, apparently right in here. (Pointing on map D). It was right in the flat slough or channel there, as marked. Though that slough or channel had banks principally on the north side, if I remember right, there was very little bank, if any. In places there was a small bank on the south. But generally it flattened out to the south. and that being lower caused the water to run off here and flow down that south line. The water would overflow to the south at that point. I plowed some in Secs. 33 and 32, in T. 29, R. 24. I put in some corn and



676 pumpkins there on those sections. I did not put in a crop at any other place down there. I have left there. The water drove me out. I went outside and purchased a little house from Mr. De Weber. That is on Sec. 20, in the same township.

Q—You say the water drove you out. Didn't you raise a crop there?

A—No, sir; the water flooded the crop. Before I left it, or about the time I left it, the water was coming over the land, over the corn, etc., that I had planted.

Q—Was the water that was coming over there, flowing in any channel at all?

677 A—Well, it came in on me from the east. The water apparently had been turned out here. When I commenced my roadway the water was flowing all through this country here. (Referring to Map D.) It spread over that portion of the country. When I threw in my levee here there was a low place up here, a low place in the ground. I didn't get the levee high enough, and the water ran over it. That came behind here and all through that entire country. So much so that it drove me out. I had to leave; to go out to dry land. The slough was filling up.

Q—What do you mean by the slough, Mr. Souther?

678 A—I mean that tract of swamp and overflowed land.

Q—In the use of the word "slough," you mean, generally, that tract of swamp and overflowed land?

A—We generally call that the slough lands. The Buena Vista Slough lands is the common term we use to describe these lands.

Q—You are not, in the use of that word, referring to any particular channel are you?

A—No, there was no particular channel, or rather, the water came down the channel until it reached a point just below the head-gate, perhaps about half a mile. There are some depressions there. We termed them  
679 sloughs that ran from the canal on the east side back to the east line of the canal here. Those were what we termed the slough. It was a depression in the land that ran back there. The water, when it got back there, flowed out into this channel. That bank is lower than it was here—back in the main described channel here. It went off here instead of following that down, and that is the water that troubled me. When the water was turned through that headgate, a few rods above the camp, into this slough, into Buena



680 Vista Slough, it ran down in here somewhere. I never was there from the fact that there was so much water there. I could not get by it. I went down to the west side to the west bank. It was not all the way down. But the bank was low there, and it threw it out here. The water came in here to the bank of the canal. I threw the water right up against the east bank of the canal. It flowed down in here through that break in the slough there where McCray left the break in the slough; the depression there was low to the east. That is in Section 15, Section 14. It must be 15, in Township 30, Range 24. The water that came up here to  
 681 the east, flowed back in this depression until it struck the east line of canal in Section 11. Then it flowed down all over that country there, from there clear to the slough. There was so much water that I tried several times to get through there, and usually failed to get through. Once or twice I made it through there. The whole country was inundated there; all through that portion there down to 3, and into Section 3. There was a line of smaller and greater high Weed Island, as they were termed. There was no tule on them, and the water had to get pretty high before it got there. That dry land I intended to follow, and did follow that  
 682 with my levee, my roadway. I had run that, as I said before, from where I went to Sec. 3 until I reached—

Q—[Int.] Never mind the road. It is the water I am speaking about.

A—I threw my roadway up. There was water lying on both sides of the roadway. I used it as a canal and a roadway both. The water followed that roadway and flowed over it. The water was lower next to the east side of canal than it was when you got down to the higher elevations where the weeds grow. In that part of the country where the water does not flow generally  
 683 over the land there are no tules, but grass and weeds—on these little weed islands. I tried to follow them. That is the reason I ran the road crooked. Following those around, I came to the north line of Section 4, T. 30, R. 24; then I followed that section line or township line to the slough until I stopped at the camp. The water came out and overflowed the country between what is marked as the slough on this map and the east line of canal. It spread out pretty much all over the the country; so much so that it drove me out of Sec. 33 where I was doing the work. I plowed considerably



684 on 33. On 32 and 33 was my first work, and some on Section 4. This is Section 4. (Referring to the map). On Section 4 and 32 and 33 was my first work inside of what we termed the slough lands. It drove me out of there and spread over that whole place. The water came down within a few rods of my camp, and I left. I think that was in April, 1878. After I moved to the De Weber house, I did some work on Sec. 32. The most of my work was on Sec. 30, in T. 29 S., R. 24. I plowed and ditched and leveed; threw up a levee between Secs. 29 and 30, for the purpose of, finally, if I succeeded in my enterprise, planting so much of my  
 685 ranch near to my fence, along that line. I went to work and threw a levee there; a light levee. It didn't take much of a levee to force the water back. I made a ditch. The levee, of course, made a ditch on both sides. I did not succeed in my farming down there. The water finally got all over the country so that I could not easily get in, and I became a little disgusted with the country down there and left it. That was in 1878. I think I left there in May. There was plenty of water down there then. At that time Bonestell was living down there.

Q—Did he have any water down there?

686 A—Well, he had some water. There was a little water in the slough. A little had run down in the slough at the first rise. It was either in January or February. I disremember the exact time that the water come down. It was about that time, though. I was there off and on all through February and sometimes in January. It was about that time. At the time I was being flooded out at my place, the water had not reached Bonestell yet. One cause of the flooding was that Bonestell went up to Wible—I had spoken to Mr. Wible not to turn in any water, if he could get around it. Mr. Bonestell came and asked him if he would  
 687 not turn him in some more water, he was short; his crops were failing. He turned the water on and that increased the water on me, and it spread out.

Q—The water had spread out over the country before it got down to Bonestell's?

A—A pretty large proportion of the water ran to the east line of canal and went down that portion of the slough. When it got to the upper end of this central cut, as marked on this map, there it ran then off to the side. It took a large body of water in order to get it



688 down the slough enough so that Bonestell could irrigate with it. Hence, when they turned it in on Mr. Bonestell to supply him, it flooded me out.

Q—What sort of land is that down there for farming purposes?

A—Well, the land is level and looked well. When I first saw the lands I drove over them, and I thought a good deal of the land, and I continued to think so for some time after I had been there. When I commenced to run this road, and so forth, plowing that road down—we had a 3-foot plow and had 25 or 30 yoke of oxen on it—we ran into a kind of clay soil at the bottom, and it  
689 created some suspicion in my mind relative to alkali, like the lands on the Livermore ranch; they had the same appearance when I went into them, and they had proved to be a failure so far as farming was concerned. I was on them a few days ago. It was puffs of alkali. At first it was black; that alarmed me a little. That was the reason, as I said a little while ago, that I left in disgust; became alarmed and disgusted with the whole outfit, water, etc. It was enough to scare anybody out. I was not in those days very easily scared; but I left there.

Q—What was the character of those lands?

690 A—As I tell you—the land was level and looked well on the top; but when I turned the land up, these alkali substances, clay, etc., which remained on the bottom part, appeared. Some of the land there had alkali on top. Where the Weed islands were there were many places that the grass did not even grow on at all. My opinion was—that is, I became suspicious of the alkali, &c., having had the experience that I did here, I thought the alkali would rise on those lands and finally they would be worthless. I concluded that they were worth more in the condition that they were then in.  
691 The surface appearance of those lands was good. I thought, when I first saw them, being so level and easily irrigated, they were the best lands in the country. My experience did not sustain that while I was there. I got no crops. I don't know whether the crop ever amounted to anything. Mr. Wible can tell you more about it than I could. I did not stay long enough to find out.

Q—From your experience down there, would you say these were good farming lands or not?

A—They are lands I would not crave at all for that



692 purpose. I consider them better for stock than anything else.

Q—Why are the lands good for stock?

A—In a dry year the tules in that vicinity, as well as in any other, when there is not too much water on the lands, grow little, grow much less, one third or one fourth the size they do in wet years. Four or six weeks of water thrown over any of those lands produces good feed; while if you put four or five months on there, the growth is so large and there is so little substance, that when the animals eat them it is of very little use. On that class of land it is better not to have very much  
693 water, as I demonstrated at the Livermore Ranch in 1877. I had some in a short season that had very little water, or none. On those lands the feed grew up that it fattened the cattle. I had some beef cattle that ran on the tule entirely, that were not out of the tule, and got feed enough to eat. Other years I could not test that, of course, certainly, but from what I could see I knew the feed was not much better. I mean feed of that character. Alfalfa or anything else is not so good when it grows large as small. When water is left on land for any length of time it grows large.

Q—You think it is not so good for cattle as a small  
694 growth of tules?

A—Well, I know it is not. Of course any man knows that, that knows anything about the raising of cattle. The smaller the feed is the more nutriment. Cattle fancy tules when they cannot get anything else. In other words, they will eat it rather than starve. I have seen cattle around there in 1877.

Q—Do they appear to be in such starving condition that they are hankering after the tules?

A—They did in 1877. They were pretty hungry.

Q—Outside of the swamp lands, how was the country?

A—I would term it an alkali desert, with the exception  
695 of a small portion of land running along the edge or margin of the tule, which produces some grass. Outside of that you stepped into puffed alkali.

Q—Do the cattle remain there when they are turned into the tule lands? Do they stay there themselves?

A—When there is any grass in a season like this, they merely stayed about the upper portion of it. I have seen some cattle in there these wetter years. Once in a while I would see a band of cattle, but they usually go there to get water, and then go back to the mountains.



696 When they can get feed at other places they do not stay there, as a general thing. I know a grass called alfileria. It is the most nutritious grass we have. Between the alfileria and tule there is no comparison. Alfileria is the best grass and tule is the poorest. Cattle like alfileria better than they do tule. When they can get it they grow fat and when they do not they are not very fat. They fattened very little on tules alone. They get to be fit to eat when they have plenty of it in a dry year. That is, that was my experience. I have seen Map "I" before I came into the court room this morning. I have never seen the map previous to my visit here. I have  
 697 seen the country—I saw work done on it. Mr. Fillebrown was doing it. I saw Mr. Fillebrown making the surveys for the purposes of this map. I assisted in it; went down with Mr. Fillebrown on the 2d or 3d, I guess, of this month, and showed Mr. Fillebrown these lines or levees where they had been run—where they had been put up. I set the stakes, or directed Mr. Fillebrown where to fix the stakes, where I made the levee in 1876—I mean the Livermore levee, marked "Souther levee." That was levee No. 2, which was made in 1876. Mr. Fillebrown set the stakes right on the levee. The water went clear over those levees after they were built in  
 698 1878—in the spring. The water flowed over the tops of those levees, and drove me out. My men had not completed the levee when they had to leave on account of it. The end was not completed. At the time the men were there at work on the end of the levee they were prevented from further work by the water. That was not in 1878; it was in 1876; it was in the spring—in May, 1876, I think.

Q—That was after the dam broke?

A—The dam broke in March, and it took it, as well as I remember, about six weeks for the water to flow back and fill the lake enough to cover this levee. The  
 699 men were then pushing ahead to complete that as fast as they could, so as to run it through Section 8—that is, the outer line. He did not get in, and the water came around, and they had to stop operations. The water came up that year to the dairy and flowed over clear to the dairy-house, which is on Sec. 32, T. 31, R. 28. It came up, as near as I could mark it, to this line here (referring to Map I). I showed that water line to Mr. Fillebrown; he has described it on this map. I stuck stakes along to designate the high-water mark of those years



700 when there was plenty of water in the lake. I know the point marked "Lone Tree;" that is about the extreme end of the lake. The water, at times, nearly every year, flows past that tree to the westward. That lone tree is about the head of the lake. I pointed that out to Mr. Fillebrown. When the water came up in 1876, it went over the levee that I had constructed in 1875. The levee of 1875 was the levee made with the plow. This other was made in some places four feet high, in some three feet high, or two feet. I cultivated some ground on the north of the levee. It ran down afterwards clear across Levee No. 1. Prior  
 701 to this rise in 1876, I cultivated down there near the upper levee nearly all kinds of crops. I had some in with alfalfa, corn, pumpkins, barley and wheat. The water, as you see it marked there, comes clear up over the township line into Sections 31 and 32.

Q—Was all this land you cultivated north of this township line?

A—South. The principal, that is the largest portion of the ranch is to the north; but the land that I cultivated in Township 32 was on Sections 7 and 8. That was all inundated; and a portion of Sections 33 and 32, in Township 31, Range 28. All of it was in Range 28.  
 702 I pointed out to Mr. Fillebrown the places along the head of Kern Lake, or along the east end of Kern Lake, where the water line came on Sections 31 and 32. I put the stakes along there to show him and designate that there was some portion of the lines, as you will see here, that ran down into Sec. 7. It ran up through the line in below the dairy-house, on Sec. 32, on the corner of 31 and 32, and passed from there across the fence. My fence was the north line there. A little below.

Q—It passed what? This is the dairy-house on the south line of 31 and 32?

A—Yes, sir. That fence is below. The line at the  
 703 house there is the half-mile line. I went along the margin of the overflow of those previous years, 1875 and 1876, and stuck stakes at points which I knew, so that Mr. Fillebrown could run the meander line. I knew that the water had come up to there in the years I speak of.

Q—Have you been much about Old River, crossing it frequently or not?

A—I have been across Old River more or less since 1874. I crossed it previous once or twice. Since 1874



704 and up to 1878, I was more or less across Old River; sometimes every week or so, sometimes twice a week. When first I came here, in 1874, Old River was pretty high. I was through there several times that I could not cross at other places, and the water was pretty well up to the sills of the bridge. I don't know but it struck the bridge. I had to go around there at times, because I could not get across at any other point safely. I could have swam it; but I preferred to go to the bridge to swimming—going a little out of my way.

Q—Did you ever see water high up there on the bridge more than once?

705 A—Frequently. Of course the water was up more or less when the water raised in the river, either from the melting of the snows or from rains. We had high water for perhaps two or three weeks, and then it runs down again. There was generally a large amount of water flowing down Old River until there was a head-gate put in at Old River, near the back end of the Cotton Ranch. They then controlled the water, to some extent, in Old River, so that at times there was not anything more than what they wanted to let down.

Q—Then if not obstructed by these head-gates, you always found, or did you find a large flow of water in Old River?

706 A—Well, it was in proportion to the amount of water flowing down Kern River. When there was a large amount of water in Kern River, it ran, of course, into the other, when it was not obstructed. In 1877, in February, I think it was, there was a little snow in the winter—a very little fall. And if I am not mistaken, it was in February or March, we had warmish rain, and the water came down all at once, quite a considerable amount of water in the river. It dropped down in a week or two to a very small stream, and it was very pinching times. It ran down so low that we did not have much in our canals after that. I believe I kept enough running most of the time to run the mill. I was under the impression we were to have a dry season approaching, and I used the water very bountifully in the winter of 1876 and 1877, because no one else wanted it. My canals were all in good trim. I flooded the Livermore ranch from one end to the other; so much so that I didn't have to flood them again until June next, when the time came to plow; everybody wanted water, and I was in a pretty good fix. That was the Spring of 1877.



- 708 At the time I flooded my land in January, there was plenty of water ; a pretty large stream in the canals, and we kept the men irrigating and filled all the sloughs in the country, because I could not keep it out of them. There was quite a little rise sometime in February or the first of March, as well as I remember. There was a little rain, and whatever snow there was in the hills came down and we had plenty of water for a week or two. It then commenced to go down ; and I think it was in April or May that the parties along down the river came to me and were desirous of having some water turned down to them. This rise was the first
- 709 of March or April, and lasted for a week or two. It was during the month of March. But in April they came to me for water. At that time I had the Livermore canal pretty full. It began to flow about the first of April. I took nearly all of the water in the river in the Livermore canal at that time. Of course other people were not using it, so I was making a point to use all of the water there was that nobody else wanted. Consequently, when they came to me for water, I was pretty well supplied with wetted land, and had an opportunity to turn them the water, and I did so. The first application, I think, came from Canfield and his
- 710 neighbors around him. They came to me and told me—I think that was in April—that their ditches were dry. I turned from my head-gate in the river some water and it went down to them.

Q—What portion of the water had you taken yourself in the canal previous to that time?

A—Well, I had it about all. About all of it. If it had not been they would have had water. When they came I didn't have much to turn back, it was so late.

Q—Did you have a dam to turn the water in?

A—I did. It was constructed completely across the river.

711 Q—Was that much of a dam?

A—Well, it was not very high when I constructed it; but the flow of water over, when there was water enough to go over the top of it, washed it out from below so that it eventually became pretty high, that dam turned all of the water into the canal, when the canal would hold it. I could turn all the water of the river into the canal. I started that dam I think about September or October, 1875. The object of building it was to control the water through the canal. When I



- 712 wanted abundant water I raised the gate and it came in. Previous to that time the sand bothered me washing in. To stop it I made a construction, made a sand-gate there, and threw the sand back and I got the water, at least there was a depression where the dam was built. In all sand streams sand does not flow in the heavy body of water. Generally it flows in the lighter currents. The consequence was, that the lighter body that was going over this crossing left my canals in a measure free. I constructed this dam for the purpose of turning the water in or out of my canal, either way. If I had too much water I could turn it out. If I needed more
- 713 water I could turn it in. That, of course, was the intent of the dam or weir, they are all the same thing. In the spring of 1877, when the water was high along in that year. I had nearly all the water. There was a little running over, not enough to reach those parties below.

Q—Do I understand you to say that in the spring of 1877, when the water was at its highest, you took it all?

- A—No, sir; I took it after it had fallen—at several times during the year we had all of the water in the river in the canal. We could handle all of the water in the river very easily at many times since I have been
- 714 there; that is between that and the South Fork. We had a connection always with the South Fork.

Q—Take the average run of years that you were in this country from 1874 to 1878, what proportion of that time could your canal and the South Fork have taken all of the water out of the river?

- A—Well, we could have handled it; during my stay here we could have handled it more than half of the time; perhaps 15 months out of 24;  $7\frac{1}{2}$  months each year, because the water was always low. During those four years we could have handled it over half the time; possibly for 7 or  $7\frac{1}{2}$  months out of each year, that is, including
- 715 the whole time. I think 15 months out of 24 would be low, because in 1877 we could have handled the water nearly all of the time; and did handle it nearly all of the time. Possibly two weeks we did not have the water during that year. 1877 was very dry.

Q—Had it been an ordinary year, like any others, do you mean that your canal and the South Fork could take all of the water in the river more than half of the year?

A—Yes, I think so. I think half the year would be a low calculation. The river always ran down in August.



716 There was August, September, October, November, and December, and usually January, that the water was very low, and often in February, making 7 months in the year, and sometimes in July. We had all the water that I took out in the canal. There were times, of course, that very few used the water out of the river below us. That is, they only took a small portion of the water. We had the oldest right. We always claimed the right, that Canal Company always claimed the right, to take out that water.

Q—Always used it for farming purposes, crop purposes, etc.?

717 A—Well, it first came to the mill.

Q—I mean for mechanical purposes?

A—Certainly, for useful purposes. It was one of the oldest canals on record, and I suppose we had the oldest right, and the best right; having the Swamp Land Act to back us up.

Q—You spoke of building a canal on the Township line. Did you ever use the remainder of the South Fork as a part of your system of canals?

718 A—I always did while I was here; turned the water into it and out of it at will. I had a gate at the entrance of my canal into it. [A map is here produced by the defendants; marked by the reporter, defendants' map J.]

Q—Will you look at that map J, and see if the system of canals constructed by you, that is, the Livermore or Kern Island Canal, is laid down on that map?

A—A part of it is here—only a part.

Q—What portion of these canals on this Map J were constructed by you, and when, and describe the sections through which they ran?

719 A—The first, to begin, would be Kern Island proper—the south portion, from the mill or South Fork, commencing at Section 31, T. 29, R. 28, running diagonally across Section 6. It is all in the same range—the whole of the land. We struck the range line about the middle of Sec. 6, and followed that clear to the lake—that range between 27 and 28. That is the portion of the Kern Island Canal which I have described. I laid out and had Mr. Colton construct the central line in 1877 and '78. That is the line running through, commencing at Section 6 and running through to Section 7—the corner of 17 and 18 through 20, 29, 32 and 33; and down further south than this map shows, into the



720 next township. That was done in 1877 and 1878. The water was then turned in through there. The water was first turned through that canal in 1877, or 1878, I should say.

Q—How has the water been used from that canal?

A—So far as I know, we irrigated with it the first year; we put in what is called Sec. 5, above the ranch. Irrigated that section with that canal. That was the first water we used out of the canal for ranch purposes.

Q—Did you build any canal from any point on the South Fork lower down than that through Sec. 6 or from the north line of Township 30?

721 A—Yes, sir. The first water I carried over the ranch was in a small canal commencing at the Kern Island, about the corner of Sec. 6, Township 31, and running—

Q—[Int.] I am speaking of commencing or connecting with the South Fork at any point lower down. You say you constructed the canal shown at the top of this map. Following the South Fork down, did you take water out of it anywhere else?

A—I did. I took water out of the South Fork at Section 4, T. 31, R. 28. It ran across out of Section 4 into 9 and 17 down into the head of the canal on 20.

722 When we first commenced the ranch we ran a line of canal right across. We turned water into that canal. That was 12 feet on the bottom, with sloping banks. We carried a large amount of water in that—about 2 feet deep, and from 18 or 20 inches up to 2 feet. We used it at the time we were working on the Kern Island to supply the whole ranch. That was in 1876, in the spring, that we built that. I don't remember the month.

Mr. HAGGIN—Q—You have stated that there was water running into Old River, in the Panama Slough, and in the South Fork. What portion or what proportion of the water that flowed down from the mountains in Kern River do you think those branches would take all along during those periods—all of them together? 723 What proportion of the water do you suppose remained to flow down New River?

A—That depended much on the circumstances. There were times when those streams took more than half. There was other times when they didn't take half. Let me understand your question again.

Q—What I want to get at clearly is, in their natural condition—not being checked by headgates, not throw-



724 ing out wing dams to collect the water—just in their natural condition, from your observation and experience in this country, what proportion of the water went down, or would go down through these branches, the Hudnut Slough—that is, the Panama, Old River and the South Fork? That is, the natural branches. What proportion of the water of the river?

A—Well, I should say that it would be governed by circumstances. When the river was low, or sand flowing more, there were times when New River would fill; that those streams would take much more than half. Again, when those streams would fill with sand, it  
725 would throw more back into New River. The sand-flow governs the flow of those streams. The sand-flow makes the stream a shifting, uncertain stream.

Q—Makes it a shifting, uncertain stream?

A—Certainly—in all sand streams when the water is low. If the water is high, of course there is force enough to carry the sand along before it, and then it is not obstructed. When I first came here, in 1873, I was not much acquainted with the canals above. I was across the river and down this way towards the lakes. In 1874, I don't remember how many canals or ditches were taking water out of the Panama  
726 Slough, there were ditches taking out of Old River, in the vicinity of Dr. Stockton's, and the lake over where Mr. Barker lived. My knowledge at that time was rather slight, from the fact that I was right here all of the time during that year. I did not pay much attention to outside work. I did not go much along the river to see what canals were running out. I was at the Cotton Ranch, and saw the flow from the river there, and at the head of Panama Slough. Those streams were about the only streams that I saw until after 1874. I crossed Old River as far as Barker's after  
727 I was here awhile; in December, perhaps. That is the only time that I remember of being over there in 1874.

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Afternoon session.

Testimony of

WILLIAM SOUTHER

Resumed.

I don't know that map "D" was made by McCray



728 from his survey. I know the Calloway Canal, and I saw Mr. Calloway; saw him at work there, with his men. It was sometime in the Spring or early in the Summer of 1875 that I first saw anything in connection with that canal. I think I met Calloway in Bakersfield here one day, and we had a little talk relative to his tools, &c. What time that was exactly I can't tell. Probably it was about May or June. I saw the canal work afterwards. I went over there in the Fall or Summer, relative to getting some brush to build the Kern Island Canal. We cut some brush right close to the head, or by the slough. I think that was in June, 729 or the early part of July, 1875. Prior to the cutting of the brush to put in the canal, we built a dam across the river, in 1875. And this was prior to that. On or about that time. We finished the dam in September or October; and it was prior to that time. We were at work there two or three months. That is the way I remember; the way I get at the data.

Q—Did you see any more work being done at that time on the canal?

A—Mr. Calloway had some men down below the slough, below the railroad bridge, and had commenced making a deep cut from the slough, running out into 730 the lands back when I first saw them. There did not appear to be much work done at that time. There had been a little when I first saw it; I think 6, 8 or 10 men were at work with scrapers when I first saw them, making a cut from the slough, that took the water down, according to the notice. I saw one of the notices sticking on the railroad bridge, and there was one of the notices sticking above. I suppose it was right at the commencement. I did not read that notice to see what it said. It was on a tree right close to where we cut the brush. They commenced down below and made a cut out. It was a wide cut that they were working at, 731 I saw them taking out the earth with scrapers; scraping the earth out of this cut. I believe the cut was 60 feet wide. I did not measure the canal. I saw them digging out the earth with the scrapers at the cut. I thought the statement was correct. He said it was 60 feet, and I presumed it was that. From seeing the canal, I should judge it was 60 feet. This was in June, sometime, I think. It was prior to cutting the brush. We cut the brush in August and September, over there. I went over there to see about the brush, where



732 we could get brush enough to build our dam. We cut the brush close by this slough. I saw work being done on the canal about that time. I was not very often over there after that. But whenever I passed over there, I saw where work had been done, or the parties at work. The tools were there nearly all of the time. The first year Mr. Calloway was in charge, and the second year Mr. Barker took charge, I think, and in the next year, 1876-7, I think Mr. \_\_\_\_\_, the engineer had charge. Whenever I was over that way, I either found them at work, or where they had been at work. I think I was over there one Sunday when there was nobody there at work. I found their tools there then. 733 Could see where they had been at work. The work seemed to be progressing every time. They were working along the canal, as we generally do such work as that. I don't know Mr. Barker's name. He was in Court to-day.

Q—Vining Barker?

A—I can not tell you. I left Kern County in 1878, in August. Have not resided here since that time. Have been here a time or two, but not made my home here since then.

734

Cross-examination of

WILLIAM SOUTHER.

Q—You say that there was an engineer, Mr. Souther, in charge of this after Barker. Who was that engineer?

A—Mr. Taylor. I cannot tell what his name was. There were three brothers here. I have not seen him within a few days. I arrived in this place on the 3d of March, 1874. I remained until the latter part of 735 May, or the first of June. I was here from early in March until May or June. I first located on the Cotton ranch. I had quite a force at work there all of the time that I was here. I left a force there. I had parties working there all the time that I was here, grubbing and taking care of the crops. Before I left I commenced work on the Kern Island Canal. I commenced work sometime in April, I think, or the latter part of March.

Q—At that time where was the Kern Island Canal getting its water from?



736 A—What there was of the Kern Island then was a cut from Captain Steven's to the mill.

Q—How did the water get into that cut from the river?

A—Through the South Fork. That cut reached from Captain Steven's down to the mill. After passing the mill the water flowed into the South Fork, and then ran down the South Fork and was taken out by other parties, as it was needed; and if it was not needed it went on to the lake. After leaving the mill it took a south course down the South Fork. I think the course of the South Fork as marked down on Map "I," is correct.

737 That is the most easterly channel on the map. That continues into Kern Lake. I commenced work right on the canal right on Section 31, and took the water out of the South Fork at that particular point. I think I turned the water from that point into the Kern Island Canal, probably in May or June, probably the 1st of June. We turned the water in and ran it down and took it out down here just below, on the side of the Brink place, into another slough, and carried it off out the way. Used the water in order to soak up the banks as we progressed with our work.

Q—After you took it down there and emptied it into another slough, where did that slough empty?

A—It didn't empty anywhere. That was a slough that ran off over a very porous sandy bottom, and the water disappeared, sunk. When I made connection with the South Fork at that point, I threw the dam across and put in the head-gate at that dam; after we got the canal sufficiently built to turn the water in. That was a short time before I left.

Q—What portion of the water running in the South Fork did you turn into the canal?

A—Sometimes we had more and sometimes less. That depended altogether on what we wanted. If we only wanted to carry down water enough for our stock, we turned in a very little. When we did not want it we let it run down the old channel of South Fork.

Q—Had you at that time commenced your work on what is known as the Livermore Ranch?

A—We had done very little work.

Q—Did you do any irrigation down there?

A—The water was carried through from Section 6, Township 31, through a smaller canal. After I left here there was no water running clear through that line



740 of canal, while I was here to the ranch proper. I left on the 1st of June and came back in July.

Q—How long after that did the water continue to run in the South Fork.

A—It ran down there until 1876. Sometimes there was no water to run, as it was all taken to irrigate. When the water was all needed to irrigate, it was taken out. When we had an over-abundance of water in the canal, and it was likely to injure any place below, we turned it into the South Fork to let it escape. In connection with my farming operations, I was there. Until 1876, I drew water from the South Fork. I put a  
741 dam in the South Fork in Sec. 4, T. 31, R. 28, in May or June, I guess, and stopped all of the water. That was in 1876, and took the water from there on the ranch through Carroll's, Sec. 9 and Secs. 9 and 17.

Q—How long did you continue to use the channel of that South Fork?

A—I always used it while I was out there up to 1878—all the time. We used it whenever we needed it. We supplied Carroll with water, or his tenants; supplied water to Section 17, and all those sections intervening along there. Mr. Kerr took water out for his old Jackson ranch. It ran through the regular South  
742 Fork channel down to where I took it out on Section 4. Panama Slough, which I spoke of, takes its water from Kern River in two places—one at the back part of the Cotton Ranch, and the other through Hudnot Slough. Hudnot Slough gets its water from South Fork. The waters that passed through the Panama Slough flowed down through the ranches all the way from Chester's. Then they took it out at what was called the Beard place; then on the Panama on Crocker's place, Noble and Owens, and down through that section. Then from there it is taken out in ditches all down through that  
743 section and exhausted. The old river ran down through a tier of sections and the final termination was in the lake—in the lower end of Kern Lake—or in the slough connecting between Kern and Buena Vista. I could not tell exactly whether it was in the connecting slough between the two lakes. I never was in there at that time. The lakes were full of water, and I had to cross according to the manner in which the lakes were laid down on the map; but I judge it was about the terminus of Kern Lake, or else into the slough which was near the terminus. I never was on the slough connect-



744 ing the two lakes. The flooding that I speak of, of the Livermore Ranch, was in 1875 and 1876, and again in 1878.

Q—How long did the water remain on the land there?

A—That depended on the time it came in. If it came from the winter rains, then it came early; and if it came from the melting of the snows, it did not come until about June, and would go off in August. About August the water usually subsided and went down. In July and August the water probably subsided more or less; of course, the lakes, too, were up.

745 Q—If the lakes were up, the land was covered; when the water receded from the lakes, of course it would lay it bare?

A—Yes, sir; the first time I came I came in a buggy. That was in 1872. In 1874 I came with teams; it was then that I mired down. I crossed Buena Vista Slough about a half or a quarter of a mile north of the tule shanty. The tule shanty was up close to the bluff. Afterwards I saw a tule shanty there. I think it was not the same one. Chinamen used to use this tule shanty there. This shanty was an old shanty, built by I don't know whom. It rained very hard the night I was there, and I went in and slept inside. I know the point of land that runs down to the slough that we would have to go over in going along the road along Buena Vista Slough in going from Cole's Bridge down to the Headquarters; and where the road goes over quite a steep hill down into the slough again, and when I crossed there; in 1874 I crossed north of that point. I didn't go over that hill. The old road ran up over a very steep precipice. I didn't know it was so bad until I got on the top. I got on the top with my team, and it was so nearly straight down there that I had to lock everything to go down. We came straight down. 746 It was a very bad place. I didn't know it until I was too far. That was the point I went over in 1874. That brought me right down to this shanty, this tule shanty.

Q—Then you went over that point?

A—I went over that point, not where this present road runs. I ran over a high point. There was two roads. There was a road around that point that came to this tule shanty. The road over the point when I got up there and looked, it looked about like that. (Describing).



748 Q—You came down there?

A—I had to. I could not get down without following that. I came down to the tule shanty and crossed. That was the next morning. That was Sunday. It rained very hard that day. The next morning, Crocker's men came from the ranch. I jumped on a horse and followed them down to the slough to see them cross the slough. I found it did not swim them, so I ventured in.

Q—You say the shanty was right at the foot of the hill?

A—No, sir. It was not. It was further along up;  
749 along above there. That was a very stormy night, as I remember, and I went in there to get in the lee of the hill with the team.

Q—How far did you go after going down that steep place before you crossed?

A—It was not very far, if I remember right. I don't remember the exact distance; perhaps it was not over a mile. I don't remember ever noticing that hill afterwards. When I got there again, I went around the other way. I noticed the hill, too; but I don't remember the distance. That shanty was probably three-quarters of a mile from the point where I went down.  
750 I went to the shanty and stopped there that night, and the next morning I came back to the slough.

Q—Back to where you came to this steep hill?

A—No. Not to where we came to the steep hill. The slough made a bend. The shanty then was here; and here was the hill back here; that was the position. (Describing).

Q—Then you crossed south of that hill nearer to Buena Vista Lake?

A—Yes, sir; crossed nearer to Buena Vista Lake than the hill was; or directly east of the hill. I saw Crocker's men coming down there. I don't know who  
751 they were. Some vaqueros, Spaniards. I don't know any of their names. I asked them where his place was, and they told me. I asked them how the road was, and they told me. I crossed over and came on up as soon as I could hitch on with the team. I constructed that dam that I speak of at the head of Kern Island Canal in 1875. That dam put the water of the river in a condition so that I could handle it. Notwithstanding that dam, when there was enough water it would run over it and down the river.



752 Q—How high was the dam above the bed on the up river side?

A—That varied of course. When we first built it, it was only about three feet; only about three or four feet of water, of course in some places it was deeper than others; usually from two, you might say, to four. When the water raised over that it poured over.

Q—How long did that dam remain there?

A—We had to repair it the next year. It was not swept away by the next high water, but it broke in one place, one portion of it, and I repaired that the next year.

753 Q—Then how long did it stand?

A—I could not tell you. I left it there.

Q—Notwithstanding this dam being there, the water would still go down the river, wouldn't it?

A—Oh, yes; whenever there was a sufficient amount of water to run over the dam, and we didn't take it into the canal, it ran down the river. The first levee that I made on the Livermore ranch I ploughed up in 1876 or 1877. It was probably done whilst we were building the second levee. That was in the spring we built, and it was ploughed up I think in order to sow or to plant that season. Some portions of it. There  
754 were only portions of it plowed up. I don't remember now which season it was. I plowed it up about the time that I was building, or else the year previous. I could not state positively which time it was. I cannot tell what I did with the copy of this map D that I had. We used it down there. I don't know but it was a copy that Wible had. I don't know what became of it. I saw it last in 1878 when I was tracing the corners, lines, etc., down about the swamp. I could not say whether I gave it to any one. I did not have it in my possession. That is, it was not given to me. I was  
755 promised a map, but I think it never was made. I think it was Mr. Wible's map that I had. I think I borrowed Mr. Wible's map. I don't remember now whether I got one or not. Mr. McCray, or Wible, or some of them, promised me a map so that I could have one.

Q—You say you had one?

A—I had one.

Q—You say Wible had one and Mr. Livermore had one. Now I want to know what you did with your copy?



756 A—Well, I could not tell you what became of it. I think it was left at the headquarters camp.

Q—Didn't you give that map to some one?

A—No, sir—out of the works you mean?

Q—What is that?

A—You mean, did I give it to any one out of the works?

Q—Did you give it to any one on the works or off?

A—Well, as I said before, I can't tell you. It was left, if I left it at all, so far as I know—I don't know that I ever had it at the Livermore ranch or not, but I used it there. I think it was borrowed of Mr. Wible  
757 and I returned it. That is my impression.

Q—When did you last see it?

A—In 1878, when I was there working.

Q—Never seen it since?

A—No, sir, not that I know of.

Q—When did you first see this copy?

A—That was sometime about that time. As soon as the maps were constructed. I was in and out of the headquarters camp often. I had free access to them. Between me and Mr. Wible, we would look over such and such points, etc.

Q—When did you first see this one that is posted up  
758 here—Map D?

A—Well, I couldn't tell. I don't know whether I ever saw it before to-day. Mr. Livermore had one that looked as much like that as I could think one pea looks like another.

Q—When did you last see one just like that?

A—I saw one this week just like that.

Q—Where?

A—I saw it at Mr. Haggin & Carr's.

Q—Was that the old map that you had when you left in 1878?

A—Which one do you mean?

759 Q—The one you saw at Mr. Carr's?

A—I couldn't tell you. I never gave it to them. I don't know anything about it. It is a map that looks just like this. I don't know where it came from. I know I never gave it to them, because I didn't bring the map I had. I did not retain it; when I left them, I didn't have a map of that kind.

Q—What were you going to say—you didn't bring the map you had?

A—I didn't bring it to the ranch that I know of;



760 that is, to retain it at the Livermore ranch. If I ever had the map or brought it home, I returned it. I think when I left the works, that is sometime prior to my leaving, I found all the corners and lines I wanted, and I think I took the map back to camp and left it. I think it was Mr. Wible's map I had, at any rate, one in his possession.

Q—When did you first see the map which is marked "I," here, that large map?

A—I saw that, I think, the paper, at least, about the third, the second or third, of this month; saw the map being constructed.

761 Q—Where?

A—It was at Mr. Carr & Haggin's house. I first saw map H sometime this week. I saw that also down there. I went to Carr's place last Sunday a week ago. Came from Mojave River. They sent for me; said that Mr. Haggin wanted me to come. Mr. Connor told me that Carr & Haggin wanted me here at the trial. I have been here, I guess it was, let's see, eight days last Sunday morning. That is, a portion of the time I was in San Francisco. Mr. Connor is my son-in-law, the foreman of the Livermore Ranch, in the employment of Haggin & Carr. I did not work for Mr. Livermore at all, sir, we worked together, and on the canal work outside. I worked with him in this country about 3 years. We had very large enterprises together. I was living at the Livermore ranch. When I left there, Mr. Connor, my son-in-law, took charge of the ranch. He is the man who now works for Haggin & Carr.

Re-direct examination of

WILLIAM SOUTHER.

763 By Mr. HAGGIN.

Q—You spoke about this canal here taking out water from the South Fork at a point on Sec. 31, Township 29, Range 28. Did the Canal Company turn the water into the South Fork from the river at its mouth?

A—When the water got low they had to go up, the people here generally. I believe when I came here in July, 1874, everybody in the whole county was



764 there, as near as I can say. The Railroad Company sent 40 men, and everybody joined unanimously, and went up there to try to get the water in. The water went down and left but little water running. Not enough to supply the stock.

Q—The Kern Island Canal Company participated in turning the water into the South Fork?

A—Yes, sir, of course.

Q—It was only what it turned in that it took out below?

A—Of course it was taken out all along for irrigating purposes.  
765

FRANK P. MAY,

Recalled for the Defendant.

I have known the Farmers' Canal since its organization in April, 1873. I was one of the originators and also secretary of the company for several years.

Q—Do you know anything about the publication of the notice of appropriation of water in that ditch, or the posting of the notice.

Mr. McALLISTER—We make the same objection, and  
766 take an exception.

The COURT—Certainly.

Q—Do you know anything about the subject of the posting of the notice?

A—Either Major Ormsby or myself wrote the notice, and I took it out and posted it myself—posted it at the point we proposed to take the water out, about 100 or 200 yards above the railroad bridge. We had worked on there some days previously to the posting of the notice, and we continued to work along, and put in the head-gate, and got the water through sometime in June. The main ditch is about 15 miles long. It is 40 feet on  
767 the bottom. We proposed to carry 100 feet under 4-inch pressure. The ditch was constructed on that basis, and the work was continued from the time we started until we got water through, without intermission. We all used more or less of the water taken in that ditch for irrigating. By all, I mean the members of the company. I am not positive when we commenced the use of the water, but it was in June that we turned the water in, and, as soon as it ran, all of the members used the water, in June, 1873, for irrigating, and it has been used continually since for that purpose. Some of



768 the ditch was a natural channel. It was a slough; I cannot say for what distance I suppose 14 miles of it was a slough. The slough in some parts of it was known as or called the Panama Slough, and in other parts, Skyles' Slough. The upper part is called Skyles' Slough, and the lower part Panama Slough.

The Farmers' Ditch is still in operation, and the water is used out of it at the present time. There has been a large body of water usually carried in that ditch. It irrigated a large tract of country. I think it takes its full capacity. The banks are deep, and the water has run every year on the banks. There has been fully 769 100 feet of water in it, I think, whenever the water was plenty; 2 years ago I think it was full. The water has been taken and used for irrigation. I think more than half of the water called for in the appropriation has been used. All of the members of the company were ranchers, living on ranches and using water. The ditch was very long, and some of the members are living at the extreme lower end, as low down as Sec. 33—in the lowest tier of sections—and to carry the water that distance requires a large body. I think the notice was posted in April, between the 15th and 25th of April, 1873. I think it was placed on record; Judge 770 Colby was the party who had it filed. He took it to Havilah to have it filed. It was given to him. I think I would recognize that notice if I could see it. [Page 8 of the record of water rights shown the witness.]

Q—Well, you look at this and see if it is the notice which you posted there?

A—That is it, as near as I can remember it, as near as I can recollect; that is verbatim. To the best of my recollection, I would swear that that is a copy.

The notice is then read in evidence, and is in the words and figures, following, to-wit.

771

#### “NOTICE.

“April the 20th, 1873.

“Notice is hereby given that the undersigned claim  
 “one hundred feet of the water of Kern River under  
 “a 4-inch pressure, at this place, for manufacturing  
 “purposes, and for irrigating farming lands adjacent to  
 “the water course known as the Skyles Slough; to be  
 “taken out of said Kern River by means of a ditch 40  
 “feet wide and 3 feet deep, conveyed through said



772 "ditch to its intersection with a tributary of Skyles  
 "Slough, through this said tributary into Skyles  
 "Slough, and through the natural channel of Skyles  
 "Slough to its termination in Kern Lake, on Section  
 "33, Township 31 South, Range 27 East.

"Dated at Bakersfield, Kern County, State of Cali-  
 "fornia, this 20th day of April, 1873.

	"O. J. Lundy,	O. B. Ormsby,
	"G. H. Carlock,	H. D. Robb.
	"S. F. Jones,	C. J. Proft.
	"W. M. Brown,	S. H. Hickox,
	"B. C. Brown,	David Comstock.
773	"H. Nobles,	F. P. May,
	"W. B. Booth,	James Prewett,
	"Daniel Troy,	C. S. Nolan,
	"Isaac Ahalt,	F. W. Smith,
	"Pierre Voisin,	J. S. Gregory,
	"J. W. Freeman,	P. T. Colby.

"A full, true and correct copy of the original re-  
 "corded at request of O. B. Ormsby, April 29th, 1873,  
 "at 9 o'clock, A. M.

"A. A. BERMUDEZ,  
 "Recorder."

774

Cross-examination of

F. P. MAY.

The work was commenced on that ditch in April, 1873. It was supposed to be 40 feet wide. It was about 40 feet wide. We put in a head-gate. I think the head-gate was 54 feet wide, or 50 in the clear. I am not sure. The head-gate was put in in 1873. In places the ditch has been widened since it was first constructed in 1873. The original head-gate washed out,  
 775 and we moved the location of that a few feet further up the river, and widened the ditch accordingly at the mouth, to correspond with the removal of the head-gate. We constructed that ditch about one mile in 1873 before we struck the slough. As far as we had to construct it, the whole width, it is about 40 feet. Through the sand ridge there was too great a fall by the surveys that the engineer made, and there we made a narrower channel, and turned the water in, and it swept it out. The narrowest place, I think was about 30 feet on the top, and it narrowed down.



776 Mr. GARBER—30 feet before the water swept it out?

A—It is about 8 feet deep on the surveys. It was not as wide, and we narrowed it down as it got to the bottom, and we turned the water in, and I think it is as wide there to-day as any other part of the ditch. I don't know exactly how wide it was in the bottom when we constructed it. In some places it was wider than others. Where we got it out with scrapers it was very wide. The first head-gate we put in was 50 or 54 feet wide, I cannot say which. I don't know that there is any difference between the width of the second head-gate, and the one we first put in, it was about the same.

777 We built a mile of ditch, and then came to the slough in what is known as the Cotton Ranch Slough. That slough continued about half a mile, and then we came into this laguna back in the swamp, and from there the water emptied into the natural channel of the Skyles or Panama Slough. All of the cut that we made was this mile from the river. We had work to do on the slough also. In places we had to enlarge the slough. In some places we had to do considerable work. We didn't get any water into that canal from any other source, excepting through this head-gate that I have spoken of. There is a Farmer's Company, another organization

778 that turned the water into the same Laguna from Old River.

Q—Is there another company uses that same channel?

A—Yes, sir; that is the slough part, and not the ditch part. We have used that for an irrigating ditch ever since we constructed it, and there has been water running there ever since. There is water in that slough every season we have been using it.

Q—Has there been any water through that headgate this year?

A—I have not been there sir.

779 Q—You don't know whether there has been any water through that headgate this year or not?

A—No, sir.

Q—What do you call a season? You say you have had water every season?

A—The season of using the water generally is the Spring of the year. This time of year we use more water than any other. I don't know whether there is any water running into that headgate now or not. I saw water in that headgate last year. I cannot say



780 how much. There were times last year we did not have all the water we wanted. There are times every year when we are scarce of water. The occasion of that was the river was sometimes not so full as others. We had to put in the wing-dam more or less occasionally: a dam to turn the water into the headgate and ditches. We have always had water in that canal when there was water in the river, unless the gates were shut down. I don't think the Calloway has deprived us of water at any time by constructing a wing dam clear across the river.

Q—Don't you know as a fact that it is so?

781 A—I don't know the fact. I have heard it stated that the Calloway was taking a large quantity of water, but individually I don't know it. I don't know as a fact in 1879 the Calloway threw a wing-dam clear across the river, and cut the water off entirely from our canal. I have never seen the river when it was entirely cut off by any dam. We never had a plenty of water every year. There have been times every year when we did not have an abundance of water.

Q—Did you have plenty of water in 1879?

A—In 1879 there was a scarcity all around.

Q—Did you have plenty of water in the canal in 782 1879?

A—It was no more than other seasons. There were other seasons that I did not have more water.

The COURT—Answer the question.

A—I was trying to recollect some particular instance in 1879. No, sir; there were times in 1879 when we did not have a full supply of water, as well as in 1877. In 1878 it was not full at all times either.

Q—Not during the irrigating season?

A—No, sir, it was not entirely full, I don't think. We had a fair supply of water last year, 1880.

783 Q—Don't you know, as a fact, that in 1879 there was water above you, running at the bridge, or above you in the river when you were not getting any in your canal?

A—No, sir. I don't. I don't know it of my own knowledge and sight.

Q—Don't you know, as a fact, that within the last 3 or 4 years there has been water running above your head-gate in the river, and none running by your head-gate?

A—I have not seen it so; no, sir. I believe the



784 Farmer's Canal Co. is now an incorporated Company. I think it was incorporated two years ago.

Q—Wasn't there some arrangement made with Haggin & Carr in connection with that corporation two years ago?

A—Yes, sir. I don't know what it was, any more than that they were members of the Company, and I think they had 20 odd shares.

Q—How many shares are there?

A—36 or 37.

Q—There was an arrangement made, was there not, by which they had a controlling interest in the Com-  
785 pany?

A—I don't know but they have a controlling interest now.

Q—That arrangement was made to give them a controlling interest in the Company for certain services that they should do in connection with it, wasn't it?

A—I think not. I don't know that that is a fact. I don't know that they have a controlling interest. I believe they have about 20 shares. Mr. Carlock is Secretary of the Company; Marion Carlock. No, sir, they have not got 20 shares. They have not got that many. Mr. Robb is the President of that Company. I  
786 have not been at the head-gate of that canal this year. I don't know whether water comes through that head-gate.

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Re-direct examination of

FRANK P. MAY.

By Mr. FLOURNOY—Q—You spoke of there being a narrow point in this ditch some 8 feet deep, where there was a decided fall, and that you constructed that  
787 some narrower than the channel of the ditch, under the idea that the water would pass through it and wash it out. I ask you if you didn't turn in your quota of water at the head-gate, and whether there was any obstruction in its passage down through this point, which you spoke of in reference to its velocity and depth; whether it carried the water that was in the ditch above?

A—This narrow cut carried the water. Every hour that the water ran, it widened it, and it carried the



788 sand down and filled up some large holes in this slough in the Cotton Ranch 8 or 10 feet deep. There was no trouble or difficulty about getting our quantity of water into the ditch, into the slough. It carried the full capacity of the ditch whenever it was turned in, and carried all we could turn into the head-gate.

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Re-cross-examination of

F. P. MAY.

789 By Mr. HOUGHTON.

The Farmer's Ditch crosses Chester's Lane south and west beyond the Chester house, I believe. Where it crosses the road there, it is 40 or 50 feet wide—that is, the water. The bridge is not that wide, but the water spreads out about 50 feet. The bridge that crosses the road under which it runs, I think is 24 or 30 feet perhaps.

Q—Is that the ditch that used to run alongside the road a distance?

A—That ditch along the side of the road was dug as a drain ditch to carry the surplus water from the  
790 lagoon. That is one of the two ditches running out of the lagoon and uniting there at that bridge. The other ditch running out of the lagoon is quite wide. I don't know how wide it really is—it is perhaps 50 feet. The one running by the side of the road is about 12 feet wide. At the point where the bridge is on Chester Lane, there is a very rapid current in the ditch.

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JOHN O. MILLER,

791 a witness for the defendant, being duly sworn, testified:  
[To Mr. FLOURNOY.]—I have been living in Kern County since 1875. When I first came here I was building a ditch on the river, which is called the railroad ditch, I believe. I don't remember what section that railroad ditch starts out from; it is in the township corner by the Pioneer Bridge. It takes its water out on the north side of the river. The Wible ditch was the next ditch below it. [Map No. 4 is shown to the witness.] The head of the ditch is on Section 31, Township 29, Range 27. I was employed by Mr. Dix-



792 on to build that ditch. We had different men working on it. I commenced working on that ditch in December, 1875.

Q—Was the work carried on continuously till it was finished, or was there any intermission?

Mr. McALLISTER—We make the same objection and take our exception as to this ditch.

A—It was carried on continuously except the head-gate; that was not put in until some time after the rest of the work was finished. I remember seeing the notice put up on the ditch on the bank of the river where the ditch was taken out. The ditch was intended to be 793 constructed 40 feet on the bottom—30 or 40; I have forgotten which, now. I don't recollect what quantity of water to the square inch it was intended to take. The length of that ditch, as then constructed, was from the river bed into the Goose Lake Slough, between a quarter and a half a mile. I don't recollect the exact length of it. It went into Goose Lake Slough and made no connection back at the river. I have lived down on Buena Vista Slough, on Sec. 24, Township 30, Range 24. [Indicating on Map I.] I went there the 25th day of December, 1875, and lived there until April, 1876.

Q—Did you have occasion to notice the water rising 794 in the river or not in the spring of 1876?

A—Yes, sir; there was, and also in the slough. It flooded a part of the crops that I had in on that occasion by the rising of the back water from Buena Vista Slough. The cause of that was that there was more water than the slough would carry, and it flooded the adjoining lands. This was in March, 1876. There was more water come down the river than Buena Vista Slough would carry. There was a dam across the slough by the county bridge, or Cole's Bridge, and the water could not get through there.

Q—Do you know whether it dammed up on the north 795 side of that levee and dam—whether the water banked up on the north side?

A—Yes, sir; it backed up on the north side; it must have been 5 or 6 feet higher than it was on the south side.

Q—Did you take any steps to relieve that condition at that time?

A—Yes, sir; I did. I got some giant powder to blow out the dam with, but before I blew it out the dam bursted. I suppose the pressure of water on it was



796 what bursted it. After it bursted, the adjoining lands were relieved of the overflow. I saw the water pass in through there after it burst, in considerable quantity. It was going south in that slough that the bridge was on, towards Buena Vista Lake, in a very considerable quantity. It was not exactly full, but it was rushing through with a considerable incline by the bridge. The bridge had caved, and it was rushing under that with considerable force. The washing away of that obstruction relieved the land from the overflow. I don't recollect within what time exactly. The water did not remain long enough to kill the grain it was on. I suppose it must have been 2 or 3 days that it was on there. 797 It was a speedy relief. The relief was so quick that it didn't kill my grain. The water covered a part of the crop of grain I had in.

Q—Do you know anything about the swamp land district north of what is now known as Wible's headquarters?

A—Yes, sir; I have been there. I have crossed it in high water, when it was flooded, when the water was all over it. I crossed it on horseback and didn't have to swim my horse. I avoided swimming it by picking my way around in going through, and passing around the 798 deep places.

Q—How could you tell the deep from the shallow places?

A—I would generally keep among the tules, and out of water which looked like it was very deep. The water was all over the swamp, without swimming. I had no one to guide me in crossing.

Q—Did Mr. Wible ever tell you how to cross so that you would not strike any deep channel?

A—No, sir; I judged by keeping in the tules and out of the clear water. I was in there hunting, and I would keep out of places that I thought was deep; 799 would keep among the tules generally. That was in the winter and spring of 1876. I was in there in January, February and March, 1876, more than once.

Q—You did this more than once then?

A—Yes, sir; I don't recollect exactly how many times, I went entirely over the high ground from one side to the other. I have been through there hunting a good deal, I can recollect twice that I have crossed from the high ground on one side to the high ground on the other.



800 Q—Did you ever attempt to go down in the slough at any point in a boat?

A—Yes, sir; from a China camp we call it on the slough, and near the ford; near the ford which I believe they call Tracy's Crossing or Mojave River. I had a small skiff, 10 or 12 feet long. I don't know the distance that I went down. I have been down there hunting ducks; I think it must have been 4 or 5 miles in a skiff. I could not get any farther, because there was some obstruction. I don't know exactly what it was. There was driftwood up above where I stopped. I didn't pay any particular attention.

801 Q—Tules?

A—Yes, sir; tules, and water all through the tules.

Q—Was the swamp overflowed at the time?

A—Yes, sir; it was overflowed where the obstruction was. That was in January, February and March, 1876.

Q—Did you ever cross the swamp at any time in going or coming from the San Emidio?

A—Yes, sir; I have crossed the swamp in going there. I have never been to the San Emidio across the swamp for the purpose of going to the San Emidio but once that I recollect of. That was in 1877, I think.

802 I crossed the swamp and went down to Wible's camp by myself. I crossed on the road by the levee that is built in from the camp—the present levee there at the headgate of the Kern Valley Water Company's canal; just above Wible's headquarters. There was not any water there then. I don't recollect what time of the year. I forget whether it was in 1877 or 1879 that I went over there.

(No cross examination.)

MONDAY, May 9, 1881.

803

DR. ISAAC D. STOCKTON,

A witness called for defendant, duly sworn, testified:

By Mr. GARBER. Q—Where do you reside?

A—Near Kern Lake, 15 miles southwest of this place. I have lived there a little over eight years; I live on Sec. 30, Township 31, Range 27.

Q—I will locate it on the map. Have you seen this map—Map I?

A—I might have seen it.

Q—I think that is one we showed you at the ranch?



- 804 A—All right; I looked at it.  
 Q—You see the place your name is marked?  
 A—That is all correct.  
 Q—What year was it you went there to live?  
 A—I think it was in 1872. It was eight years about the second or third day of last November since I first came there. I have been farming there 160 acres.  
 Q—How far is that from Kern Lake?  
 A—The lake is hard to locate; because the water came up really on to my place; on to the tract of land that I now occupy. It came up the first year that I occupied that. That is, I went there in 1872, and in 1873,  
 805 when the water came down in the spring and summer it was up on my land, and through the sloughs. It slunk over a little, or flowed over a small portion, but only a small portion of the south end. It was in the sloughs. I understood it was the water from Kern Lake. I supposed it was Kern Lake; because it was all in a body, and no flow about it; only gradually rose up.  
 Q—You know that it was a part of the waters of Kern Lake?  
 A—It is all a connection. Yes, sir; I think there is not much lake there; I think it is more of a bog than  
 806 anything else. It is a very large sheet of water when it is high; quite a sheet of water. When it is low, there is not much water. I never knew it to be low in the lake only about a couple of years ago; two years ago. Two or three years ago, at the outside not to exceed three years ago, but two years ago, I knew it to be low. Up to that time it was a large sheet of water—very large, I think. I have been around the lake; all except a portion of where the slough connects Buena Vista Lake and Kern Lake.  
 Q—Have you ever been around there?  
 807 A—I have been through there since the water assuaged; since the water went down. I was never through there when the water was high. In 1873 the water came up partially around my place. In 1874 it was still higher than in 1873, I think. In 1874 a very small portion of the south end of my place was submerged by that lake. I think in 1874 the water came nearly within a half mile of my house, any way. My house is on the north end of the section, the furthest from the lake, within, I suppose, 200 paces. In 1875 the water was up very near the same as in 1874. In 1876 it was still higher; worse than ever; almost



808 alarmingly so. It came within a third of a mile, I think, of my house, on Section 30; that is near the north end. In 1877, in the spring, it was not so high; I think in 1877 it got on the south end of my ranch, in the sloughs. It was on a portion of it in 1877, in the sloughs, but not on the surface. It was a little lower than it has been any year since I have been there. The water commenced to recede in the spring of 1877. It continued to recede, I think, until 1880, last year. In 1881, this year, we have a little bother now in crossing right across the slough between the two lakes, because there is water in there. That slough that  
809 connects the two lakes, is beginning to fill up with water, so we don't care about trying it. It is beginning to be now more like it used to be before 1877; a great deal of it; more than we want. I am a little acquainted with the place called the Cunningham place. It is west from my place, I think about a mile and a half, or not to exceed two miles. I cannot quite locate the number.

Q—Can you tell me how the water has been on that place since 1872 and 1873?

810 A—Well, I think about 1873, Mr. Cunningham wished me to go over to plough him up a little spot to put out some shrubs and trees at his little place. He was working for me. I went over with my team, and found a little difficulty in getting around on account of the water; but he chose a place at the spot where his house at that time stood, slightly east, and we plowed him a little spot to plant out trees; and the water was close up to us at the time. I can't state what section that is on; but I think I would know the number if I heard it.

Q—Is it Sec. 26, T. 31, R. 26?

811 A—It is T. 31; R. 26, but the section I don't know as I could locate. I don't know what portion of the section his house is. Not being able to locate the section, I would have to leave that off. The water was close to his house at the time I did the plowing. I am not sure when that was, but I will suppose it. You will allow me to state a supposition, it was about 1874.

Cross-examination of

Dr. ISAAC D. STOCKTON.

Mr. HOUGHTON. Q—Do not Kern and Buena Vista Lakes get their water from Kern River?



- 812 A—That has always been my understanding or supposition. I never traveled along the canal to see, or along the slough to see how it went; but that is my presumption all the time. The waters of those lakes recede after the spring floods; universally so since I have been down there.

C. C. STOCKTON,

a witness called for the defendant, duly sworn, testified:

- 813 To Mr. FLOURNOY—I came to Kern County in the spring of 1872, in the early part of the spring, the first of April. I went right to Jock Ellis's and stopped there first. That is on Section 6, in Township 30, Range 27. I remained there one month and ten days, at the start. I now own the southwest quarter of Sec. 30, T. 31, R. 27. I do not live there; I am stopping on the Livermore Ranch, and have been for three or four years; but I call that my home.

Q—Can you point out Sec. 30, on the map?

- 814 A—Yes, sir; there it is [pointing on Map I]; it would be on that quarter [pointing], the southwest quarter. I own that quarter; I settled there in the fall of 1872.

Mr. GARBNER. Q—Is that the one marked "Ahalt?"

- 815 A—Ahalt is on the upper one; I own the lower, and Ahalt the upper one. I own the S. W. quarter of Sec. 30, T. 31, R. 27; I settled there in the fall of 1872; that is, I pre-empted then. I resided on that place about two years; I stayed there most of the time. Kern Lake was on the south end, when I went there in the fall of 1872 to take that up. The water came up to the south end of my quarter section, just a little; it just did get on the south end, the south end of my section. In 1873 it was about the same; it came up a little and then receded again in the fall; in the spring it came up a little on it. I remained there until the spring of 1875.

Q—Did the margin of the lake apparently change any in that time?

A—Yes, sir; it came up in the spring—that is, beginning along in April. It rose up, I guess, until in June, sometime, and then began to recede gradually. It came up in the spring of 1874, nearly all over the place, over my quarter section; there would be some high places that was on the northeast corner of the



816 place, that there was no water on. In those years it would recede almost a mile, sometimes; but in the sloughs it would not recede so far, and it would rise again in the spring.

Q—To high-water mark? Do you know whether there has been any change in the spring rises there since 1875 and 1876?

A—Well, 1876 was the highest. In 1875 it was about the same; not much difference; not quite as high as in 1876. In 1876 it was pretty high; a little higher than in 1874, I think.

Q—How was it at your place in 1876?

817 A—The water was over a great deal of it; a regular slush.

Q—How was it in the spring rise of 1877?

A—I don't recollect seeing any water on it at all—that is, on my place; there has been no water there since that time, only when it was conducted there through ditches.

Q—How far has the margin of the lake receded from that point since that time?

A—In fact, it has receded all the way; you can cross it any place—cross the swamp any place—most any place. I was at the Livermore Ranch some years ago; 818 I was there when the ranch was first started; I have been there off and on ever since; I have known of two levees being constructed there; the first one was constructed right below the dairy, starting, running along what they thought was the high-water mark—I think, on Sections 5 and 6, and then running on 3 and 4, or 3, right below the dairy house.

Q—See if you can mark it on the map?

A—Commencing down there on 32. [Showing on map I.]

Q—There is a dairy marked there. Look at it, in 819 T. 32, R. 28.

A—That would be Section 29. It appears to me that the dairy ought to be right here, in this section. It starts on the section west of that.

Q—What section does it pass through?

A—I will tell you, I don't know what section it is, but it is south, running almost east and west along with the margin of the lake. In some places where we have started in, I have seen the water within 300 yards of the dairy house. Then beyond that would be some places in there, it was generally a due east and westerly course. I had nothing to do with the construction of that levee,



820 but I was there seeing it myself every day. That was constructed in 1875, in the Spring.

Q—Will you look at the dairy house, marked on that map, and see if it is in the same place you think it is. Examine that map please and see.

A—The dairy is on Section 32. It appears to me that this levee ought to be in the section below and in the next township.

Q—This levee you see marked there is not the one you are talking about.

A—No, that is not the one.

Q—Is the dairy ranch correctly marked there?

821 A—I think the dairy ranch is correctly marked. But the dairy house is not marked there. The dairy house was in the ranch, it was on the west side and a little below.

Q—Do you know anything about the other levee, the second levee?

A—That is lower down, it is south, south and west. That was built in 1876. I think it was in 1876. In the Spring of 1876. I have been to the south side of those lakes.

Q—How far have you seen the water out on the south side of Kern Lake?

822 A—I have seen it when it would be full up to this side; and then it would run out. The boat house is on the south end of the lake. The boat house where the wharf is. I have been there, I have seen the water at that house. The water was on the west, north of west, I guess, or west. I should think 20 paces; 20 or 30 paces of the boat house.

Q—How did you get to the boat house?

823 A—Well, the wharf started I think, and ran exactly west a little, and then ran north, and they stepped off from the house on to the wharf, and then they could get right down into the lake. They could get to the boat house from the land. It was dry there most of the time. Sometimes it was not, Sometimes there would be water around it.

Q—After the construction of that levee of 1876, the second levee, did you discover any rise of water about those levees?

A—Yes, sir. I only stayed there about until the first—I left there about the first of June, 1876. In 1876, after the second levee was constructed, the waters rose over them, over both of the levees. I know where the lone tree is out there. I have seen the water



824 around the lone tree, right around the roots; but very shallow. I have been there lately, I was in that locality last on the third or fourth of this month. I was there with Mr. Fillebrown.

Q—Did any one designate those points you have spoken of to Mr. Fillebrown?

A—Yes, sir; Mr. Hoke, Thomas Hoke and Nick Brown.

Q—What points did you designate to Mr. Fillebrown?

825 A—I pointed out the lone tree, for one. Mr. Connor pointed out the levee to him. I don't know who pointed out the dairy ranch to him. I guess he knew that himself. It is there now. I have been to the boat house too. I was there with the others. The lone tree is there now; the same tree that I saw water around. That I pointed out to him. I have seen the water within 300 yards of that dairy house; just a little below. The dairy house is still located where I first saw it; in the same place. The boat house is not there. It has been moved away; but the signs of the building are there, in the same place where I first saw it located. The place that was pointed out to him as the boat house is the place where it was. It was  
826 pointed out in my presence. I was there when the levees were pointed out to him. They were the same levees I have been speaking of. I was there when he was on the levee. I know them to be correct.

Q—When this water that you speak of was at the boat house and around this lake there, how did you have to go in getting around the east end of the lake?

A—To the adobe station. Away around in here to get around it; around east of it. East and south.

Q—How did you go as to the lone tree?

827 A—I could go down there, manage to keep out of the water; to go to the lone tree, or to get in that neighborhood there.

Q—When the water was up? Suppose you wanted to keep out of the water; how would you go?

A—I would have to keep up above it; to keep out east; north and east of the lone tree. That is, beyond the lone tree from the lake.

Q—Do you recollect whether there was any building at the boat house except the boat house?

A—There was a little stable arrangement. It appears to me that was just south of the boat house—almost south. I have never seen the water out at that



828 stable. I have seen it though between the boat house and stable. I saw it between the boat house and the stable in 1876, and I saw it in the summer of 1873, up around the boat house. Right up to it, you know. That was after the spring rise. When I saw it around this lone tree, it was always in the spring rise. It came up there several times while I was on the ranch, around the lone tree, up to the year 1876. It came up there in 1876. It did not come up there in 1877. It has not come up there since 1877. I know where Mr. J. C. Clark lives, or used to live. I don't know what section it is. I could point out the locality on the map.

829 Mr. McALLISTER. It is not marked on the map, is it?

Mr. FLOURNOY. I think not.

The WITNESS, [examining map I]. I believe it is Section 30. I don't know; I think it is Section 30.

Q—You are not positive about that? You think it is about that neighborhood?

A—Yes, sir; that is about the neighborhood. Here is Ellis's. I think that is Section 30, in Township 30, Range 27.

Q—Have you ever been much about Clark's place?

830 A—Yes, sir; I have farmed there. In the fall of 1873 and the spring of 1874.

Q—On Old River?

A—Yes, sir.

Q—Were you ever troubled with water there?

A—Yes, sir; from the river itself—Old River. The water would overflow; it ran out in the wheat and killed it. It overflowed its banks; it stayed out about two weeks at the highest stage that year. Two weeks overflow. I could cross it then only by swimming.

Q—Have you ever seen Old River high at any other point?

831 A—Well, it was high all along. I have crossed at the bridge at Anderson's Crossing, since it was built. I crossed there the spring after it was built. I think along in January I crossed there one day. The water was very high. It was in 1875, I think. In January it was up to about the stringers of the bridge.

Q—How was it in 1876?

A—It was up to the stringers then; that is, I saw it one time I was crossing through there; nearly to the stringers. It lacked may be a little.

Q—Carrying a large body of water?

A—A large body of water. I know Panama Slough.



832 In 1872, when I first came here, it was carrying a large body of water; in the spring of 1872.

Q—How much did it carry in 1873, '74 and '75?

A—It didn't carry any only what was turned in.

Q—You say in the spring of 1872?

A—In the spring of 1872.

Q—How much did it carry in the following years, say up to 1876?

A—Didn't carry scarcely any, only just what amount they turned in at the head. It was controlled by head-gates. The farmers commenced using water for irrigation out of the Panama Ditch in 1873, I think it was.

833 They have been using it ever since, every year. There is a good deal of land in cultivation down through there, I should judge the past two years or so, down as far as Section 30; I mean down as far as the south line of the Township.

Q—Where does Old River discharge itself? Where did it discharge itself in the years you have spoken of?

A—It appears to me as if it discharged itself right in the swamp between the two lakes, Buena Vista and Kern Lakes.

834 Cross-examination of

C. C. STOCKTON.

Mr. HOUGHTON. Q—You say you have not been on your place for some two, three or four years.

A—No; only occasionally. I have not been farming it. I have been on the Livermore Ranch during that time. I am at work there now for Mr. Connor. He is superintendent of the Livermore Ranch; I could not tell you who own it. I guess Carr and Haggin. Mr. Connor hires me. He pays me.

835 Q—Don't you know as a fact that Haggin and Carr own the ranch?

A—I never heard them say so.

Mr. GARBER—We admit that he is working for Haggin and Carr.

Mr. HOUGHTON. Q—Who did that ranch belong to when you first went there?

A—Mr. Livermore. I worked for Mr. Livermore then, or Mr. Connor.



836

VANDORN STONER,

a witness for the defendant, being duly sworn, testified as follows:

I live on the island, in Kern County; came to Kern County in March, 1875; I went to work for Jock Ellis, on Sec. 6, T. 31, R. 27, I believe. I worked there three years, and have lived there ever since. That was about three miles from Kern Lake at that time. When I first went there the lake was within about three miles of the ranch, at the nearest point. I have not  
 837 been about Kern Lake a great deal. The first time I was around it, or on the south side of it, was in the summer of 1876. I am acquainted with Old River; Mr. Ellis' place is close by it; about half a mile from it. There was a good head of water in Old River in 1875, when I crossed it, I think, the first time; I don't know what time in 1875 it was; it was either in April or May; I think it was in April; I crossed it several times in April or May, 1876; it was swimming every time. I crossed it there in times of high water. I crossed it at Barker's place, the Charlton crossing, and at the crossing above Cole's; I don't know the name of  
 838 the crossing; I don't know that it has any particular name. North of Cole's. I know where the Inman crossing is; I also crossed at the Inman crossing; there were two crossings that Mr. Inman used; it was swimming when I crossed it during those months in 1876. I have crossed the river at the Stine crossing during 1876, but not during high water. Old River carried a good head of water after the rise was over; I don't remember how late, but as long as I crossed it there was water in it—a good body of water. I have been down on Buena Vista Slough.

Q—When was the first time you were there?

839 A—I am not positive, but I think it was in the fall of 1876; I won't be positive though. I went down on Cole's levee and crossed the bridge, and went around by the lake; I don't know how the water stood at that time; I did not cross New River at that time. I have been down on the slough north of Wible's camp, in the swamp land district, in 1877.

Q—How often in 1877?

A—Numerous times in the fall; in the spring of 1877 I worked down there; then in the fall I hauled hay off and on for a couple or three months from Jock Ellis' Ranch to the camp, which was sometimes above Do-



840 ver's house and sometimes below; I mean the ditch camp. They were building a big levee in the swamp land district; it was Wible's camp, or the parties who constructed that canal. I crossed the swamp land district in hauling that hay, a part of the time.

Q—At what point?

A—Across Weed Island. There was a road along there. I was hauling hay in wagons. I could not say how often I crossed it; several times, I suppose as many as a dozen times or more. I did not see any water when crossing the swamp at that time. All of the water I saw was in the wells; none in  
841 holes.

Q—How was it about a channel crossing there? Did you cross any channel in crossing on the road?

A—No, sir; I did not cross any channel.

Q—A good wagon road?

A—Yes, sir. I did not see any water at all.

Q—Were you with Mr. Fillebrown on this survey?

A—No, sir; I was not, I worked for Mr. Wible in the spring of 1877 only 3 weeks, 3 or 4 weeks. I worked on the big canal 3 weeks in 1877. I was hauling hay in the fall of the year. I worked for Carr and Haggin for the Stine Canal Company. I  
842 don't remember seeing any water in the Wible Canal in the spring of 1877. I was at work, I should think, about 10 miles below Head-quarters Camp. I saw no water in the canal at that time. It was in April. I never worked for Haggin and Carr, except on the Stine Canal. I was then at work for the Stine Canal Company.

#### Cross-examination of

VANDORN STONER.

843 Mr. HOUGHTON. Q—You say in 1877 you were passing across that slough a dozen times, across on Weed Island. Can you fix the point where you made that crossing?

A—Well, I went in past the DeWebber place, and crossed Weed Island right through the DeWebber place. From the DeWebber place, I should judge I went a mile north-west, and across on Weed Island. There was no natural bed along that road that I remember of. There were two pumps on Weed Island, said to be Weed Island, I supposed it was, everybody called it that, and we camped at these pumps frequently. The



844 road ran within 20 or 30 feet of these pumps. The  
pumps were to the north of the road. So, in going  
along that road from the DeWebber place across the  
swamp, we would be a little to the south of the pumps.  
In going across there some went down on the levee past  
the Head-quarters Camp. It was nearer for me to go  
across there, a better route. I don't know whether  
there was another road or not. That is the only road  
that I know of across the swamp at that place. It is  
the only one I ever travelled. I was never down Old  
River channel clear to the lakes, and I don't know  
whether it empties into the connecting slough, or into  
845 the lake.

THOMAS HOKE.

A witness called for the defendant, duly sworn, testified:

To Mr. HAGGIN I reside in Bakersfield at present.  
I came to this county in the fall of 1870, November.  
When I came here, I resided at the ranch of Mr. Ellis.  
That is in Township 31, Range 27, on Section 6. I  
846 went there to reside on the 23d of November, 1870.  
I worked for Mr. Ellis at that time nearly a year. I  
have lived adjoining that ever since, you might say.  
That is on Section 1, Township 30, Range 26, the adjoining section. They come right together. That is  
in the vicinity of Old River. Old River runs through  
it.

Q—Have you been frequently or constantly about  
Old River?

A—Yes, sir. There was water in Old River, when I  
first saw it, after November, 1870. I should judge the  
channel to be about 30 or 40 feet wide, and a foot or  
847 two deep.

Q—Running?

A—Yes, sir.

Q—Much current?

A—Yes, sir. I have seen Old River when the water  
was not running. In the fall of 1871, the water was  
not running in Old River. After 1871, I think water  
ran in Old River, constantly up to the fall of 1877.  
The water generally rises in Old River about April.

Q—In 1871, was there much rise about April along  
there, in the spring of 1871?

A—Yes, sir; there was some rise. In 1872 it was



848 considerably higher. It was over the banks. It would swim a horse—probably five or six feet deep.

Q—How wide?

A—At my place and Mr.                   's it was probably 40 or 50 feet.

Q—Running much of a current?

A—Yes, sir; a strong current, very difficult to swim across it. Along in the fall of 1871 there was no water in the river; in the winter it was quite high. About Christmas it was very high; Christmas 1871. About the last of 1870 or the first of 1871.

849 Q—Do you mean Christmas of 1870 or 1871? That is, do you mean the last part of the year 1870, or the last part of 1871?

A—I mean the last part of 1871?

Q—Christmas, 1871, then?

850 A—Yes, sir; the water was high then. I went about that time from Mr. Ellis's place to Bakersfield. I crossed water in coming here. I crossed what was known as the Ormsby crossing down here on this slough; and I crossed also from the Oulton place, or the Inman crossing, coming down on Old River. I had to swim the river at the Inman place, and the slough also. I believe that is the Panama Slough. I crossed it at Dr. Ormsby's place. It was known then as the log school-house; afterwards owned by Dr. Ormsby. I don't know what section it is on. I had to swim there also. There was considerable current there.

Q—You said the water overflowed there at Jock Ellis's; did that occasion any trouble at all? Did you have any difficulty with the water that overflowed?

851 A—Yes, sir; we built about half a mile of levee there to keep it off the place, in different places. I have crossed the Old River about there in a wagon. When the water was high, it ran over the backs of the horses; quite a large span of animals. I should judge they would weigh thirteen or fourteen hundred. That was in 1876; along in April, I should judge, or the first of May.

Q—What was the usual condition of the river, of the water, in the spring, say from the time you first went there—the usual condition of Old River up to that time you speak of in 1876?

A—It would get quite high every spring; always high in the spring. There was always water running from between the fall of 1871 to some time in 1877. In the spring of 1877, the water in the river was low—not so



852 high as usual. There has been but very little water there since the spring of 1877.

Q—Do you know any reason for that?

A—I presume it was on account of the head-gate being put in Old River to control the water—at the head of Old River. Prior to the putting in of that head-gate there was always high water in the spring; since that there has not been.

Q—Do you know who put that head-gate in?

A—The Stine Canal Company I suppose. Mr. Ellis gets water from the Stine Canal Company at his place now. Prior to putting in of this head-gate he got it  
853 from Old River.

Q—When did you first know of the Stine Canal? Or do you know of any ditch that was known as the Stine Canal?

A—Yes, sir, I do; I first knew the Stine Canal in 1872, I believe. Old River was used as a ditch at that time; appropriated for that purpose.

Q—Did anybody but the Stine Canal Company use Old River at that time, from December, 1872?

A—Yes, sir; I believe they did. There was a ditch run from it at Panama; I don't know who it belongs to; Mexicans principally owned in it. I don't know  
854 the name of that ditch; I always understood it to go by the name of the Troy Ditch; it has not been called the Castro Ditch, not the same one; it was not called the Castro Ditch at that time, I don't think. That Troy Ditch has no existence now. I don't believe I can state when I last knew of its being used; I don't believe it has been used any since the summer of 1872.

Q—From the summer of 1872, was there anybody using the water but the Stine Canal Company? I mean to say, using Old River, but the Stine Ditch?

A—I don't think they have, unless the Castro Ditch  
855 is considered a part of the river.

Q—That was the ditch then of the Stine Canal was it?

A—Yes, sir.

Q—Old River from 1872. Do you know whether the Stine canal continued to use that ditch? Whether that continued to be the ditch of the Stine Canal after 1872?

A—Yes, sir, and at the present time. Mr. Ellis does not take water out of Old River now. He took it out in 1875, I think. He gets water from the Stine Canal now. I think they built that ditch in 1876, in the Spring.



856 Q—When you say that Mr. Ellis gets his water now from the Stine Canal, what do you mean?

A—I mean that he gets his water out of a ditch dug from the Stine Canal, or a branch of it. That branch comes from Old River. It starts out from Old River, almost due west from the Chester Lane, I think. That is not right at the mouth of Old River. I should judge that it was about a mile from the mouth of Old River. I mean from the head of Old River; where the head-gate is. That ditch was constructed in 1876, according to the best of my knowledge.

857 Q—This branch that Ellis uses—After that was constructed have you ever seen the water in Old River above that? Above where it diverges from Old River?

A—Yes, sir. I believe Ellis gets an abundance of water at his place from that branch ditch. He gets more from the canal than he used to from the river.

Q—You say you have seen the water in Old River between the head-gate at the head of Old River and the place where this Stine branch diverges from the river?

858 A—Yes, sir. That water runs down to Ellis' place, through this branch that I speak of.

Q—How does the amount of water turned in at that place to get it down to Ellis' through this new branch that you speak of, the one built in 1876, compare with the amount of water which had to be in the Old River at the same place prior to the construction of that branch?

A—It took more water to run down Old River than it did to run down the canal; it would take as much again. There was another head-gate put in Old River in 1873, about 100 yards below that, I should judge.

Mr. McALLISTER—Put in the Stine Canal?

859 A—Put in the head of Old River, known as the Stine Canal.

Mr. HAGGIN. Q—Did you have anything to do with the construction of that head-gate?

A—Yes, sir. That was in the fall of 1873. I could not say positively the size of that head-gate. I think 160 or 170 feet wide across. Across the river, it extended almost completely across the river; they built at that time an embankment at the west side, I think; it extended, I think, northwest, a little. It was built about on a line with the line of the head-gate. I know something about Kern and Buena Vista Lakes. I have



860 been along the margin of those lakes. The first time I ever went to the lakes was in the spring of 1871. I went about to this discharge of Old River; about the mouth of Old River. I don't know of any point at that place right near the lake, that I could designate that I really know. That was in 1871.

Q—About that time did you know of any place along the margin of the lake?

A—Nothing more than the sloughs and things I crossed at that time—no people. No fences or anything of the kind along there at the time. No one lived there.

861 Q—When did you first know any point along the lake or in the vicinity of the lake, that you can designate now?

A—Well, Mr. Cunningham's house; I think I first knew that in 1873—1873 or '74. I know he was there about that time—I think in 1873. I know he was there in 1874. I can't say positively whether he was there in 1873 or not.

Q—What time in 1874?

862 A—Well, in April or May. I suppose the water at that time was in 40 or 50 or 60 yards of Cunningham's house—something like that; I never saw the water of the lake any higher than that; but saw the mark where it had been higher than the house. The water mark that I saw in the house must have been 15 or 18 inches from the ground; I do not know the fall of the ground there; I think that would carry water 150 to 180 yards above the house in order to bring it to the level. I was with Mr. Fillebrown lately when he was making a survey of different points along the margin of the lake. I pointed out to him the Cunningham house, and the place where the water came. I pointed it out just as I saw it, as near as I could. There were no  
863 other points that I designated to him on that side of the lake.

Q—When you were at the Cunningham house, which direction—what course did the water line of the lake appear to lie in?

A—It was a little southeast and a little southwest. I pointed out to Mr. Fillebrown what was known as the boat house, on the south side of the lake; and as near as I could where I had seen the water; it was the place where I had seen the water. I had seen the water, I judge, about 30 yards south of the boat house. The boat house was in the water. That was in 1873; in the



864 summer of 1873; I believe I designated no other point to Mr. Fillebrown on that side.

Q—You say that you were along the margin of the lake in 1873; and that in 1874 you saw the water about the Cunningham house or near the Cunningham house?

A—Yes, sir.

Q—Did the water appear to be as high in 1873 when you saw it, as it was in 1874, from your general knowledge of the country?

A—I should judge it was a little higher in 1874; in 1875 I did not see it until late in the fall; I judge at that time it was 300 yards from the Cunningham house,  
 865 in the fall. Late in the fall. I don't really think I saw the water along the margin of the lake in 1876. I can't say for certain whether I was there or not. I don't think I was along the lake after 1875, that I remember of. I know what is termed the Buena Vista Canal Slough. I know where it runs. I have seen water in it; it came out of New River. I saw it first in 1872. I think it came from New River right north of section 4; about the center of the section; in Township 30, Range 27, I believe. The general course was about southwest, I should judge [referring to map I]. I saw it all the way from Canfield to the river, you might say, in  
 866 1872. I know that water was taken from that for irrigation purposes in 1872. Mr. Barnes, Mr. Watson, Mr. Walling and Mr. Setter used the water; there was quite a stream of water in it when I saw it in 1872. I have seen it off and on ever since I have been in the country. I have seen the Buena Vista Canal. I don't know exactly where it comes out of Buena Vista Slough. I think it is just above section 4 a little way. I first knew the canal in 1875, I believe. In the fall of 1875. From 1872 to 1875, when I was off and on about Buena Vista Canal Slough, I found water in it most  
 867 always. The canal has water kept in it for the purpose of irrigation. I understood that it was used as a canal. They all claimed so that lived on it.

Q—After the Buena Vista Canal proper was built, did you see water in the canal slough?

A—I think, at times I have seen a little; but I never was far down in it—that is, since 1875.

Q—Have you seen water down about the same place in the canal—the Buena Vista Canal?

A—Yes, sir; still further south.

Q—Which appeared to carry the most water—the slough before the construction of the canal, or the canal subsequent to its construction?



868 A—I don't think I could say; I don't know; I never examined it close enough; in fact, I never made any examination of it; I have never been at the head of that slough since the canal head-gate was put in; I don't know anything about any head-gate.

Q—You say you were along the margin of the lake, off and on, at different times in those earlier years, 1873, '74 and '75. You were there, I understand, both in the spring and in the fall, at different times?

A—Yes, sir.

869 Q—What was the general fluctuation of the water—the variation between the high-water mark and the low-water mark, in those times? How far would it recede from high-water mark, according to your observation?

A—I should judge, about a mile.

Mr. HAGGIN. Q—You stated just now that the fluctuations, you thought, between high and low water, were about a mile. Are you not mistaken in the amount of fluctuation?

A—I might be, of course, mistaken; I could not say positively whether it was a mile or not.

Q—Do you know the Lake House, or the Lake Ranch?

870 A—I have been there, yes, sir; I was there in 1873, if I remember rightly. At the time I was there the water was low down; it was along in the fall or winter.

#### Cross-examination of

THOMAS HOKE.

Mr. HOUGHTON. Q—Does not Old River empty into the connecting slough between Kern and Buena Vista Lake?

871 A—I could not really say; it empties into one of the lakes, or into the slough. The head-gate that was put into the head of Old River in 1873 was made out of lumber; it was put in about 100 or 125 paces south of where Old River leaves New River, in the channel of Old River; it was thrown nearly clear across the channel of Old River.

Q—What was the purpose of putting that in there?

A—The location of the Stine Canal, I suppose. It was constructed by driving some pilings across the river, and putting in a head-gate to the ditch. The gate was about 160 or 170 feet wide. I don't know



- 872 that I could say accurately how wide the river was at that point. I should think 200 feet. I think this head-gate was the whole distance, except 30 or 40 feet. I saw it first late in the fall of 1873. I saw it off and on for quite a while, until the other gate was built. It continued there until the other gate was built. The next gate was built in 1877. I believe the first gate was taken away when the second was built; the first was there at the time the second was being built. I saw it there. I did not assist in putting that second gate in. It was along in the fall of 1877 that it was put in. It was put in nearer New River than the old one was. It was right where Old River comes out of New River. I don't know how wide that gate was. I never measured it. I have been across the river since the new one was put in. I have never passed over it with a view of measuring it to see how wide it was. I was foreman of the pile-driver in building the first one; was not there while all of it was made. I don't know that I could really explain how it was made. The water was controlled by drop-boards in the gate. The drop-boards did not extend the full length of the gate. They were five or six or eight feet long. Different sections or different lengths from one side to the other.
- 874 Putting those sections all together they were 160 feet. I believe the gate was about five feet high. It would be a difficult thing to answer how many boards were put in that head-gate. I have seen some in there, I could not tell how many. I saw the water running over the boards, the whole length. The second gate was about 100 paces above the first one. The other gate I spoke of in connection with the Stine Canal is about a mile lower down—down Old River. It is in connection with the Stine Canal. It is where the branch of the Stine Canal takes the water out of Old River. I don't know how wide the head-gate of that branch is.
- 875 I never saw it put in. The smaller gate was about a mile down the river from the main gate, I should judge. That gate was constructed in the fall of 1876. It was built before the second gate, up at the mouth of the river. In 1875 I think I saw the water flow over the first head-gate, along in the summer. I presume the high water in the river caused it to flow over there.

Q—Would the water flow over there every year when there was high water, and down Old River?

A—What they would let in would. The water did



876 not every year flow over there, and go down Old River in a large body. There was water running down Old River from 1872 to 1876, and in 1871, also, in the spring.

Q—Then at every high water the water would run over there, would it, and run down?

A—What they would let over would run down, of course. I am at work here in town at present, under Mr. Colton, drawing some lumber from Sumner to Bakersfield.

Q—In connection with what work is that?

877 A—The Kern Island Canal, I suppose. I have been at work there since the 17th of February last. I do not know who owns that land; I don't know who Mr. Colton works for. He is Superintendent of the Kern Island Canal Company. I was 32 years old the 28th day of January.

J. S. ELLIS,

A witness for the defendant, being duly sworn, testified as follows:

878 To Mr. FLOURNOY. I reside in Kern County, about 10 miles southwest of Bakersfield, on Sec. 6, Township 31, Range 27. [Points out on map I. as being the place where "J. Ellis" is marked.] I live on the north-west quarter of that section; have lived there about 11 years, since 1870. I have been down on Kern and Buena Vista Lakes, when the water was up pretty well.

Q—How far was the high water mark in 1870, at the time you went there, from where you now reside?

A—Well, to follow Old River down, it was 4 or 5 miles; I live within about half a miles of Old River.

879 Q—Where do the waters of Old River go to or discharge themselves?

A—I have not been exactly to see it, but I suppose in between the lakes, into the slough, between Buena Vista and Kern Lakes; I suppose the slough would continue into them when they get up.

Q—Has there been any change in the volume of water in the spring rises in the lakes since you have been down there?

A—Yes, sir; there has not been much water in the lakes now for two years; it has been very low; three years ago the lakes were well up; they fell about three



880 years ago this spring; I don't think there has been a great deal of water running since.

Q—How far has the high water margin of those lakes receded from the time you first knew it in 1870?

A—Well, I don't know how far it has gone down. I crossed there last fall, and the lakes seemed to be a long distance apart. I could not tell. I suppose Kern Lake has gone down five or six miles. I have not been around Buena Vista. There was considerable water in Old River in 1870; it was pretty high in the spring; it was not as high as it has been though. I was not there a great deal in 1870.

881 Q—How was the water in Old River in the spring of 1870, '71, '72, '73, '74, '75 and '76, and along there?

A—There was less water in 1871 than there has been. I think in 1871 there was less water than in any year; in 1872 there was high water there I think. The river got out of its banks; it was out of its banks in 1873; it was over its banks in 1874. There was a good deal of water in 1875; it was high in 1876; I had to levee a good deal to keep it off the place that I had over the river, and I lost most of my crop. Now that was in 1875, I think. During those years I had had occasion to cross Old River frequently, and I used to find it  
882 swimming in the high water, in the spring rises; it would carry some water the most of the year until in the fall; a pretty good body of water, without it was a dry year.

Q—Are you acquainted with Buena Vista Slough?

A—I am, sir; I am not a great deal acquainted with it; I know where Cole's crossing is, and the bridge at Cole's crossing. I don't remember the first time I was down there. I crossed there when I came in on the island the first time, in 1870; I crossed there a few times before the county road was built there; I did not then cross it at Cole's crossing, I crossed below, at  
883 Tracy's crossing. I have also been across at Cole's bridge, or in that vicinity. The first time I crossed, I think, was where the bridge was built. There was a levee thrown up by Mr. Baker, and I have been there at intervals, off and on. I have observed water there at Buena Vista Slough; it had a pretty strong current there in high water until the lakes got up. I have crossed there when the dam was broken; the water, the most of the time, from what I could see, was running into the lakes.

Q—Did you ever see it running in the other direction?



884 A—Well, not without the lakes were full; I never noticed it; when the lakes were filled up it would run in the other direction. I was down there with sheep in the summer of 1876, at Cole's crossing, and crossed over to the other side. The water was pretty high then, and troubled me considerably in getting across on this side of the bridge.

Q—Was it dammed up?

A—Well, Mr. Baker had put a levee across it and it broke; it was not sufficient to hold anything; it broke along there. I was down around there in 1878; I had some hogs around there, and I was there a number of  
885 times in the winter and in the spring; I mean three years ago, in the spring of 1878. I had hogs around there, and used to go round occasionally.

Q—When you went there in the spring of 1878, was there any water there—a large body?

A—Well, there was in the spring. I went down there once just when the dam broke; it broke when I was down, and I did not get across; it was either the last of February or the first of March, 1878. It was pretty high on the north side of the dam, at the time it broke, I think four or five feet; I should think it was perhaps within two feet of the top of the levee; I mean  
886 that it was four or five feet higher on the north side than it was on the south side of the levee. I saw it break; was there when it broke through. After it broke the water went off into Buena Vista Lake.

Q—Do you know anything about the swamp land district below Wible's camp?

A—Well, I don't know a great deal. I have crossed there a few times. I hauled some hay across there in 1877; I think it was in 1876 or '77; I could not say which now. When Mr. Wible was building that big ditch I was hauling for Wible.

887 Q—What part of the swamp land district did you cross in hauling?

A—Well, I crossed part of the time at Headquarters' Camp and then crossed some in by what they call De Webber Camp.

Q—The De Webber Camp? Do you know where Weed Island is?

A—Yes, sir; there is where we crossed, I think, when we crossed at De Webber's. I don't know how often I crossed. I may have been down five or six times.

Mr. McALLISTER—Q—At the De Webber Camp, or altogether?



888 A—Yes, sir; at the De Webber Camp five or six times. There was no water in the swamp at that time.

Q—Is there any continuous channel or bed of a stream anywhere in there; through there where you crossed?

A—Well, I have never noticed any slough. I don't know that there is. I noticed when I went there that there was not as much of a channel as I expected to cross in that place.

Q—Was there a road there? A good road?

A—Yes, sir; a very good road for tule land.

889 Q—Did you see anything that indicated the regular channel of the stream?

A—No, sir; I would not call it a regular channel. There were sloughs, might have been. I didn't follow them down. There were sloughs.

Q—Sloughs on each side of you as you were passing? Holes you mean?

A—Yes, sir; some sloughs along.

Q—What do you mean by sloughs? How would you describe them?

890 A—Well, there are holes where there had been water but there was no water in them. There was no water where I crossed. I didn't see any but what was pumped.

Q—You have never crossed it except at that point?

A—No, sir; I never crossed right across, and never made any special observation about it.

Q—I understood that you did some hauling in the swamp land district across where Weed Island is in 1877?

A—Yes, sir; I used a four-horse wagon.

Q—What kind of a road did you have across there?

A—It was a good, fair road.

891 Q—How did it compare with the roads on the higher ground?

A—Well, I hauled my loads through as easily as I could there without any trouble. The swamp land where we went through then was grown up with tules. The most of it was on wet land. The most of the way it was swamp, and tules on both sides of the road the most of the way, I think.

Q—In going along there did you find depressions in the swamp?

A—It was a fair road. There might have been. I don't remember about the sloughs because they were dry.



892 Q—Do you remember any channel at all?

A—There was a channel, but not deep. I suppose it was where the water had run off from the swamp, but it was dry there.

Q—It did not strike your attention any more in one place than in another?

A—Well, there was a place appeared to be lower, a sag like, but nothing but what you could go right in at that time.

Q—How wide was that place?

893 A—I don't remember now. I cannot say. I think it was along the water edge of the island, of Weed Island, I think it was.

Q—Did it show any sign of its ever having been a water course along there?

A—There was water flowed all through there, the water would run all over the swamp, and tules were growing all through the swamp.

Cross-examination of

J. S. ELLIS.

894 Q—Where was this depression that you speak of?

A—Well, as near as I can remember, it was along in close to Weed Island. I think we had to go a half or three quarters of a mile after turning into the swamp and overflowed land, before we would reach this depression.

Q—How deep was that depression below the ground on each side?

895 A—I don't know as I can state exactly, because I was not paying any particular attention, but was only going through with some hay, did not suppose I would ever —it was just like anybody would go along the road, after I got over it —

Q—[Interrupting]—You went across there five or six times with a loaded team?

A—Yes, sir.

Q—Wasn't there any depression through there which you had to go with your team, and you would take notice, on account of its being difficult to get in or out of?

A—It was not difficult. A man could go right through.

Q—Was it quite a pull to pull out of it?

A—It did not pull more in there than in other places.



896 The hardest place we had was crossing New River. That was the only right hard pull we had on the road. That was occasioned by its being a heavy sand, a sandy bottom. Where it was not sandy there was no trouble pulling our load. There was a roadbed through there, it was not sand down along the swamp land. It was hard there. It was very solid.

Q—Do you remember, as you were crossing from the De Webber house, that the pumps were running at that time?

A—Yes, sir. I don't remember how near to one of those pumps we crossed; but it was not many feet; it was pretty near to it.

Q—One of those pumps was right close to the slough, wasn't it?

A—There was an old pump, I think, close to where I crossed. I think a part of the water pumped there ran into a hole that they had there for one pump; and a trough and a hole, I think, for one of them. I expect that hole must have been in the slough. It was a double pump. I don't remember of only one that we passed on the road. There might have been more. I don't remember crossing any other slough or any other depression after passing that pump on Weed Island.

898 Q—Did you notice any depression on the west side of Weed Island?

A—It might be a little sideling; I think it is lower than Weed Island.

Q—There is a low place between Weed Island and the highland on the west?

A—I think so; yes, sir; it is low in there.

Q—What season of the year was it you crossed the river at Tracy's Crossing in 1870?

899 A—It was in April; the water was not very high; that was a very dry year. I cannot say how much water there was at the crossing, but we crossed without any trouble. The water was running; running down the river. We crossed at the new Tracy Crossing; not the old. I crossed the slough before that; crossed the slough at the old Tracy Crossing. There was not a great deal of water at that time. The slough was pretty well up at Tracy's Crossing. I think it was higher in the slough than it was in the river. I know it was.

Q—How deep was the water when you crossed at the slough?

A—It was not so deep but what we crossed it with the wagons without difficulty. The water was running there.



- 900 Q—What direction?  
 A—Going southwest.  
 Q—Towards Tulare Lake?  
 A—Yes, sir; running by the slough.  
 Q—That was in April?  
 A—Yes, sir.  
 Mr. GARBNER. Running southwest?  
 A—Well, it was running down the slough.  
 Mr. HOUGHTON. The southwest or the northwest?  
 A—The northwest, I think.  
 Q—It was towards Tulare Lake?  
 A—Yes, sir.

901

Re direct-examination of

J. S. ELLIS.

- Q—Did you say that the ground was lower there going to the west, after you passed Weed Island?  
 A—Yes, sir; the swamp was lower all the way across after I passed Weed Island going west. I think it gradually falls a little. I don't know that it does all of the way, but I think there is a fall from Weed Island.
- 902 Q—There is no defined slough which you found on the western side in crossing?  
 A—I don't remember of any.  
 Q—When you crossed at Weed Island, do you remember the pump?  
 A—I think there was an old pump there. I don't remember but one pump running in that course; there might have been more; I think the crossing was about three-quarters of a mile from where the old pump was.
- Q—Was there a pump close to the slough where you crossed on Weed Island?  
 903 A—Yes, sir; there was a pump out on the west side of the island, like. We crossed right close to the pump. I should think the road ran maybe within forty or fifty feet of it. I drove up to water there. I could not tell which side of the road it was on. I think it was on the left hand side going west. They were working at the time. Mr. Crocker was pumping water there for his stock. The pump was owned by Mr. Crocker; I suppose it was. I don't know the man's name who was running it.
- Q—How came you to think it was Mr. Crocker's pump?



904 A—Mr. Crocker's cattle were around there, and I suppose it was Crocker's land there.

Q—Do you know Mr. Crocker's cattle?

A—Yes, sir; I know his brand, and I saw his cattle around there.

Q—Did you say the pump was in the slough?

A—They ran the water into the hole, and they had troughs there, and filled them up. Where I crossed I don't remember there being holes there. I don't remember of there being so much of a place there as there was where the other pump was that I speak of—the old pump which they were not using.

905 The depression that I speak of was at the pump they were not using. That was further east, and this side of Weed Island. I don't remember how far it was. I did not charge my mind with it. This slough that I speak of, or this sinking in the ground, was where the old pump was which they were not using; it was not on Weed Island. As near as I remember, it was before you got to Weed Island—about half way, or three-quarters of a mile, but I cannot state the exact distance.

906 Re-Cross-Examination of

J. S. ELLIS.

I think the pump that was on the left side as we went west—as we went towards Wible's camp, would be between us and the Buena Vista Lake, but I won't say positively. I am not sure about it. I think in crossing we would reach the slough before we would reach the pump.

Mr. FLOURNOY. Q—Were one of the pumps used on Weed Island, and the other east of Weed Island?

907 A—I don't know; I suppose they would call it Weed Island; I don't know exactly.

Q—You thought it was on Weed Island?

A—Yes, sir; I thought it was on Weed Island.

Mr. HOUGHTON—You don't know where Weed Island is—where it commences on the east line?

A—I don't know; I supposed the road crossed it there where we crossed the road; I don't know it exactly. That is what we call Weed Island; that is all I know; that was the place I saw cattle at on Weed Island.



908

C. L. CONNER,

a witness for defendants, being duly sworn, testified as follows:

I live at the Livermore Ranch, in this county, twelve miles south of Bakersfield. I came to this county first in the spring of 1874, in March; I came from San Felipi, San Benito County; I came to Pacheco Pass and the San Joaquin plains, along to Tulare Lake, and on the west side of the lake; I followed up the lakes and came to the present site of the Livermore Ranch; I followed them south. I don't know anything about the swamp and overflowed land as shown upon this map. [Map shown the witness.] I know that I followed up the margin of the swamp land southward from Tulare Lake; I followed it up to the head of Buena Vista Lake, or to where the mountains come into the lake; I crossed the slough there, or west of there. When I first struck the mountains running into the lake I went west over the mountains; I crossed the mountains, I should judge, about ten miles; I came out on the plains on the opposite side of the mountains from where I started, traveling southwesterly. After I struck the plains on the southwest side of these mountains, I then went due east, I should judge, about four miles, and came to what I was told was Buena Vista Lake. I then traveled down the lake in a northerly direction, I should judge, three or four miles, and I then crossed the Buena Vista Slough; I don't know at what point I crossed, I crossed at the point of mountains; I cannot name the crossing. I followed along the slough, after leaving the lake, until I came to the crossing, but I don't know what crossing that was—first crossing I came to; I then crossed the slough.

911 Q—After crossing the slough, which direction did you take?

A—I don't know exactly as to the direction I took from there to the Bakersfield road. I did not cross any water immediately after leaving the slough. I should judge it was two and a half or three miles before I crossed any water, and it was immediately after leaving the California Ranch, or California Bank Ranch, which was pointed out to me. It was the Dixon Ranch, now called the Buena Vista Ranch. Crossed the slough before reaching Buena Vista Ranch. After crossing the slough I went to Buena Vista



912 Ranch. I should judge I went nearly in a northern direction, perhaps east of north; in a general northerly direction. I went within half a mile of the Buena Vista Ranch. I don't remember in going from the slough to the Buena Vista Ranch, crossing any channel.

Q—After reaching within half a mile of Buena Vista Ranch, which direction did you take?

A—As near as I can remember, the road then extended about east. I went from Buena Vista Ranch to the Keith Ranch. I don't know where that is, according to its location in sections; it is east and south of Dixon's Ranch. I followed the wagon road, but I cannot say it was straight by any means.

Q—Before you reached the Keith Ranch did you come to any water?

A—I did, sir; it had the appearance of being a river. I crossed it. The stream, I should say, was eighty feet wide, and, perhaps three and a half or four feet deep, running rather rapidly; it was running in a southerly direction.

Q—After crossing that, did you come to any other water?

914 A—Yes, sir, I did. The general appearance of that stream was about the same as the first. The second perhaps contained more water and running in a southerly direction. The streams were about a quarter of a mile apart, I should judge. I crossed both of these streams before I reached Keith's place. The second was about the same depth as the first that I crossed, between three and four feet, but some wider. It was running rapidly, and in a southerly direction. I crossed it before I reached Keith's place. I think it went through a portion of Keith's place, perhaps within two hundred or three hundred yards of his house. I did not see Mr. Keith. I met his partner, who told me that it was his ranch. From that point, I went to Canfield. I know the Alejandro place, and I passed it there. In going from Keith's to the Alejandro, I went in a north-easterly direction, and after passing the Alejandro place, I went from there to Canfield. I crossed no water before I reached Canfield that I remember of. From Canfield, I went to the Inman crossing on Old River. There was water in Old River. The stream was perhaps one hundred feet wide, perhaps three feet deep, and good fording, and I forded it without any difficulty. The water was running rap-



916 idly. It was just below the dam that had been constructed in the river. I went from that place to Panama. I crossed the slough immediately before coming to town. There was a good stream of water there, still it was a good crossing. I should judge it was 80 feet across, perhaps two or two and a half feet in depth. There was not much current. There was some current to it, it was running in a southerly direction. From Panama I came to the present location of the Livermore Ranch. I crossed no water in going from Panama to that point. I have resided at Livermore Ranch ever since then, with the exception of  
 917 about six months. I left in September, 1874, and returned again in the Spring of 1875. I reached Livermore Ranch in March, about the middle of March, 1874.

Q—Do you know anything about Kern Lake?

A—I do sir, the southern boundary of Livermore Ranch, at that time was on Kern Lake. The southern boundary of the ranch then was the south line of Sections 31 and 32, T. 31, R. 28. The high water at that time extended north of the south boundary of Section 31, that was in 1874. In 1875 the water extended north of the line, but I think hardly as high  
 918 as in 1874. I think it extended a quarter of a mile north of the line in 1874. That was the water from Kern Lake proper. In 1875, the water extended north of the line, but was not quite as high. We built a levee there. The first levee we commenced in 1874, about a quarter of a mile south of the south-west corner of Section 31, and extended it in a south-easterly direction, following the margin of the water and ceased at the south-east corner, nearly at the corner of Section 32. The line would vary perhaps from one-half to a quarter of a mile. We followed the line  
 919 of the water as near as we could work. We built another levee down there. The second was built in 1876. We were guided in the same manner as the first. The water had receded so that we extended it into the lake half a mile further than the first; it was in the spring of 1876. We were working on the levee during the months of March and April. That extended from the S. W. corner of section 6, about three-quarters of a mile south of the first, and went south in an easterly direction, guided by the water as we were in the first; it extended around the eastern end of the lake, and connected on the south side; thus shutting off the east-



920 ern end of the lake. The object was to reclaim a portion of the Livermore ranch from the overflow of the lake; it had that effect as long as it remained whole. We worked on both the first and second levee until we were driven out by the water; it drove us from working on the levee in 1875, and also in 1876; and afterwards it overflowed the levee; in 1876, the water extended up to the same point that it did in 1874, north of the south line of Sec. 31. I know where the dairy ranch is.

Q—Will you look at map I, and see if you can designate that point?

921 A—I think that is about the right location; this black point or black dot representing the artesian well and the other the dairy house and stable; in 1875, the water was within about a quarter of a mile of the dairy house, south. In 1876, I think it was probably as near as it was in 1874; it was nearer in 1874 than it was in 1875; in 1876 it was less some—I suppose one-eighth of a mile less at the point you refer to, at the dairy house; and continued that at its highest about three weeks; in 1874, it receded perhaps half a mile; perhaps three-quarters. After it commenced to recede  
 922 in 1876, during that year perhaps it went back a little; and it has continued to recede ever since; it passed over the levee that we built in 1876, and it also passed over the levee that we built in 1875. At the extreme end of the lake there is a lone tree; I have seen the water up to that tree, but not beyond and east of it to my knowledge; it came right up to it. I have also seen the water under the boat-house. I should say that the lone tree was correctly designated upon that map, but I am under the impression that the boat-house would be west. The boat-house is very nearly on a line with the western boundary of the Livermore Ranch, on the township that is, I think, the mark designating the boat-house, is west of where it should be. I did not go to the boat-house with Mr. Fillebrown. I never made any survey of the boat-house. I am speaking simply of my general knowledge of the country. I knew of Mr. Fillebrown running surveys down there during the last month. I saw him at work. I was with him a part of the time. I gave him the high-water line of 1874, about the centre of the section, east and west, where I knew the water had come, and also pointed out the dairy-house, and to what point the water had come there. I did not go to the lone tree with him. I was  
 923



924 on the levee with him, and saw him working there. I drove a stake for him to indicate the position where the water had come. It was on top of the levee. I think the water was higher in 1875 than it was in 1876. The water went over the levees built in 1876, and also the one we built in 1875; but I don't think it extended beyond the high water mark of 1875. I know that the high water of 1875 and '76 extended up on to Section 1, T. 32, R. 27, upon a portion of the section; but I cannot give any definite points. I should say perhaps two-thirds of the section was under water both years. I was cultivating land in Sections 31 and 32, at the Liv-  
 925 ermore Ranch, those years. Section 32 we had plowed and seeded to grain and corn; 150 acres was flooded with the water from the lake. I have been engaged in farming in this county, and used water for irrigating. I have had experience in using old sloughs in conducting water. In several instances on the ranch, we have used sloughs; in other instances, ditches.

Q—Is there any difference between those ditches which are built, and the ditches which are sloughs, in the amount of water required to run through them; that is, is there any saving in the amount you would have to turn into the one and the amount you would  
 926 have to turn into the other?

A—Yes, sir; there is very much of an advantage in favor of the ditch over the slough. I have used one channel which branches out from the main Kern Island Canal, on Sec. 18, T. 31, R. 28. It extends diagonally through Section 19. I have a ditch there now. We use, perhaps, a quarter of a mile of the slough still. The balance is abandoned.

Q—Do you find that by the using of the ditch there is any saving in the waste of water?

[Plaintiffs object to the question as leading, irrelevant, and immaterial.]

927 Mr. HAGGIN—The object is to show that where old sloughs were used it required a greater volume of water to make the water available at the point of intended use than it now does where the ditches are constructed upon higher land or with more solid banks and confined within more regular defined channels.

[Objection overruled. Plaintiffs except.]

Mr. HAGGIN. Q—Do you find any difference in the amount of water which you would have to turn out into this old slough in order to utilize it at the place where you intended to use it, and the amount of water



928 which you would have to turn into the made ditch to be used at the same place?

A—Yes, sir; I find there is a great difference. It requires much more in the slough than in the ditch. It would depend very materially upon the time it was to remain in the slough. For the first few days or a week it would require twice as much. The longer it remained in the slough the less wastage there would be. That has been my general experience in the use of sloughs and ditches.

929 Cross-examination of

C. L. CONNOR.

Mr. HOUGHTON. Q—I did not quite understand the route you took to reach Buena Vista Slough when you first came to this country in 1874. Where did you first strike the swamp land along Buena Vista Slough?

A—Immediately after leaving Tulare Lake. I cannot say how far I followed along that swamp land at that time, but I think three days, with my band of cattle I left the slough immediately after striking the mountains. I cannot say how far northwest of Wible  
930 Head-quarters it was that I left it. I am not familiar with that country, having passed through it but once. It was, perhaps, ten miles from the time I left Buena Vista Slough until I crossed the mountains, and came to Buena Vista Lake, and then between 3 and 4 miles east, from the time I left the wagon road leading to San Emidio until I came again to Buena Vista Slough, that is, it was between 13 and 14 miles from where I left the swamp land until I got round again on to Buena Vista Lake. I cannot designate the particular point I reached on Buena  
931 Vista Lake; it was two or three miles from where I crossed the slough. I did not reach the lake where the slough entered it. I cannot say whether it was the extreme western extremity of Buena Vista Lake or not. When I came to the lake it had the appearance of being full size. I went two or three miles before I struck Buena Vista Slough, in a generally northerly direction. I crossed immediately or just below where the mountains came into the slough or lake. I don't know where Cole's Bridge is; I have not been on the slough recently. I was there last in 1874. I have not been there since. After striking the lake, I fol-



- 932 lowed along the margin of the lake, and at the foot of the mountains, and it was three miles from the time I first struck the lake until I came to the first crossing. I was on the margin of the lake all the time, and still traveling right by the water. I followed along on the margin of the lake until I came to a slough. After coming to the slough, I followed it perhaps a quarter of a mile north from the point of mountains. I cannot tell whether it was a portion of the slough or lake. The country had the appearance of being flooded along there, and was covered with tules. I followed along until I came to a well defined slough;
- 933 my memory does not serve me very clearly as to how far we followed that slough, but I should judge, perhaps, half a mile. I passed over no mountains, but went right to the foot of the mountains and crossed at the regular crossing; I don't know the name of the crossing. After making that crossing I took the main traveled road from that point to Panama; the general course of the road, I should say, was east from two extreme points; from the town of Panama to the slough. I made the crossing early in the forenoon, and that night I went to San Emidio—that is, I went from Buena Vista Slough to the present location of the
- 934 Livermore Ranch, and from there I went around on the east and south side of the lake, and rode to San Emidio; I was looking up Mr. Souther. I crossed the slough from the west to the east side, and then started on the road to Panama; and I crossed the slough in the middle of the forenoon and camped that night at San Emidio, which is 20 miles south of the Livermore Ranch. After crossing the slough I went to the east side of the lake, passed the adobe station, and after going around Kern Lake I went on the main traveled road leading from the adobe station to San Emidio. I
- 935 reached the Livermore ranch about five o'clock in the afternoon; I took a fresh horse and rode from there to San Emidio, expecting to meet a band of cattle, I had started around on the opposite side of the lake; I crossed that slough from the west side to the east side; I went from there direct to Panama; the general course of the road, I should say, was east. I think I reached Panama between one and two o'clock; going through, I remember of crossing two streams quite near the Dixon Ranch, or California Ranch. I remember crossing no further stream until I came to Old River, and the next was Panama Slough; I should



936 judge I went within a quarter or half a mile of the Dixon House; I was in plain sight of it. After crossing the slough I went in a nearly northerly direction; I did so to keep out of the water. I should judge I went, perhaps, a mile and a half, when I came within half a mile of Dixon's house. In going the mile and a half I did not cross any stream or river bed that I remember of. After reaching that point I then went very nearly east, following right along the road, when I came within half a mile of the Dixon house. There I found a well-beaten road. I followed it and crossed at a regular crossing, but not at

937 a regular wagon crossing.

Q—Was there any road leading from that crossing?

A—There was a dim road, not a well traveled road. I left that when I came to the main traveled road. At this point, half a mile from Dixon's house, I was south of the house. After making that turn and going east I went, perhaps, a mile and a half or two miles before I reached any water. I was not particularly impressed with the distance I was traveling on the road. The first stream, perhaps, was 80 feet across it and 3 or 4 feet deep. It came up to the girths of my saddle. It was, perhaps, a quarter of a mile, or may have been

938 further, before I came to the next stream. After crossing those two streams I came to John Keith's place. I don't know what section Keith's place is on. I have been there since, in 1877. Mr. Crocker had his cattle camp there. I don't know that it was that exact location, but it was very near it. Keith's place was southwest from the Alejandro Ranch. I did not return from Panama. I went around on the east side of the lake. I continued from Panama to the Livermore Ranch and then went round the lake.

Q—Did you ever cross Buena Vista Slough after that?

939 A—No, sir. The levees that I pointed out to Mr. Fillebrown are still on the ranch and remain as they were. They are not used.

Q—I understood you to say that it requires less water to run through an artificial than through a natural channel. Isn't that so?

A—I say that it requires less water to run through a constructed ditch than it does through an old slough.

Q—That is, if both of them were dry?

A—Yes, sir.

Q—Suppose the water was running in the slough



940 naturally. Is it a saving of water to take it out and run it the same distance in a ditch, or is it a saving to have it in its natural channel?

A—I should say to run it in the ditch. It would depend upon the nature of the soil through which it was passing.

Q—Say they were both the same?

A—Perhaps there would be less wastage in the slough after it was already soaked through than to put it in the dry ditch.

Q—Isn't it the fact that the more changes and channels you use, the more you waste, necessarily?

941 A—Not necessarily. The more channels you run the water through, or the more ditches through which you carry the same amount of water, the more wastage there would necessarily be. I have used natural channels through Sections 18 and 20, extending to Section 29. It is one of the branches of the South Fork. We have been using it ever since the ranch has been in operation, and are using it now. When I made this trip across the island in 1874, I was alone. I was then in the employ of, and working for, Mr. Livermore and Souther. I worked for them from July, 1869, up to the time of the transfer of the ranch to Mr. Haggin. After the  
942 transfer I worked for Haggin & Carr. At the time of the transfer I was working for Mr. Livermore. Mr. Souther had then drawn out of the ranch. I think I was working for Mr. Livermore about one year before the transfer. I am now working for Haggin & Carr, having been with them two years. I have in my employment a man named Stockton. I am the son-in-law of Mr. Souther, who was on the stand.

#### Re-Direct Examination of

C. L. CONNER.

943 Mr. HAGGIN. Q—You said that from the Dixon Ranch you went easterly after reaching that point, and that you went to Mr. Keith's place. Did the road run pretty straight to Keith's place, or not?

A—I should judge the general direction was east; it varied some; a natural road; the general direction of the road, from the time I first struck the main traveled road at Dixon's was east; perhaps a little south of it; it was an irregular route, following the high ground. I paid no attention to the sinuosity of the road. The water that we use in the slough that I speak of, on the



944 Livermore Ranch, a portion of that comes from the Central Cut Canal, and it was used on Sections 29 and 32; that used on 18, 19, and 31 is from the main Kern Island Canal; the Central Cut that I speak of is a branch of the Kern Island Canal. All the water we use comes from the Kern Island Canal.

Q—Does all that you have used there come from the Kern Island Canal?

A—No, sir; we have used water there from the South Fork; I can't say how it got into the South Fork; I presume it was turned in by Mr. Souther; he had charge of the canal at the time, and of a portion of the  
945 South Fork. We used the water from the South Fork first in 1876; I know that it was turned into the headgate where the South Fork Canal had a dam put in, in order to direct the water into Kern Island; it was at the head of the Kern Island Canal, immediately north of the Brink Ranch; it was on Section 21.

[Designating it on Map I.]

At that point the water was turned into the South Fork through this gate; that was built across the South Fork in order to throw the water into Kern Island; that water was turned into the South Fork through the headgates at the head of the Kern Island Canal; but with  
946 regard to the general construction of the headgate I don't know; that headgate was on the river. I recognize the place on the map where the water was turned out; and it is on Section 31, T. 29, R. 28; the water taken out at that point on the South Fork was turned in by the Canal Company above. I never used any water on the Livermore Ranch that was not turned in from the river above by the Canal Company, that I was conscious of.

947 Re-Cross-Examination of

C. L. CONNER.

Mr. HOUGHTON. Q—Do you know how water got into the South Fork in 1875, that was afterwards diverted from it, on Section 31, into the Kern Island Canal?

A—No, sir; I am not familiar with the construction of the canal; I don't know how it got into the South Fork in 1876; in 1877 I know there was a portion of it turned into the headgate of the Kern Island Canal; I cannot say whether all of it was or not. That headgate



948 which I have referred to on Section 31 is a dam put in by Mr. Souther to turn the water from the South Fork channel into the Kern Island Canal; when we wanted to use the water the gate was raised to allow the water to run through from the South Fork. We continued to use water in the South Fork channel until the completion of the Central Cut Canal; I think that was completed in 1878; we used the water there until 1879; the South Fork channel, where that dam was put in has been abandoned since that time; I cannot say what its present condition is; it has been abandoned since 1878; I have not passed that point recently.

949

T. R. FILLEBROWN,

Called as a witness for the defendant, testified:

I am a civil engineer; have resided in Kern County most of the time since the 1st of March, 1874, pursuing my business of civil engineer; I have made a great many surveys through this portion of Kern County; I have made surveys generally throughout what is known as Kern Island and its surroundings, and am generally 950 familiar with the general surroundings, rivers, streams, canals, etc. I was Deputy County Surveyor for two years; I have made surveys in the vicinity of Kern and Buena Vista Lakes, of the high water lines of those lakes at several points; last made those surveys on the 3d and 4th of this month; the purpose of my survey was to determine the location of the high water mark from the margin of the lakes; I had persons to assist me in finding that high water mark. Mr. Hope, Mr. Stockton, and Mr. Conner, and Mr. Brown, and Mr. Colton, and Mr. Souther were also on the ground; they 951 pointed out to me the different points to which the high water had come; I at that time ran surveys and lines along the high water lines, as designated by them; the lines were run along in the exact points which they indicated; at those points we found evidences of high water; I found at almost all points along the high water lines, the roots of tules and bulrushes, and a kind of salt weed that is very common on ground that has been overflowed.

Q—Will you look at Map I, and see if the lines which you ran are indicated on it?

A—Yes, sir; they are designated by the light black



- 952 line; slightly shaded with green. I started first from a point designated by Mr. Conner as the high water mark of 1874; I ran levels, meandered a line also westward, or south-westward, to the range line between 27 and 28; on that line were several points which had been pointed out to me as the levee built by Mr. Souther in 1875; I then ran along the levee built by him in 1876, pointed out to me by Mr. Souther, eastward from the range line, or south-eastward rather, to the terminus of the levee, which was directly east of Kern Lake. This levee is designated upon the map by a heavy brown line, and is marked "Souther's levee, 1876;" from several points
- 953 on that levee, near the eastern extremity and at the eastern extremity, I measured off to two or three different points on the high water mark above, pointed out to me by the persons I have named; the high water mark of 1874, and also as indicated by the levels run around on the north side; they were pointed out by those same persons whom I have named; and that irregular line on Map I represents it. I afterwards went around to the south side of the lake to a point designated as the "Boat-house," where there is remaining the old foundation of an old house, barn, and wharf; determined the high water mark from there by levels, up from the
- 954 water surface in the lake corresponding to the same elevation which had been pointed out to me on the north side; and I found them to agree very closely with the high water mark as indicated by the growth of vegetation, and as pointed out to me by Brown, Stockton and Hope as the high water mark on the south side. I continued to meander that line eastward, or north-eastward, from there around as far as the lone tree at the east end of the lake, connecting with my work previously run from the north side of the lake. The line marked on the west end of the lake was determined by
- 955 survey made by myself and others in 1878. I speak of Buena Vista Lake, measured along from the section corner to the highest water line, as indicated by the vegetation, water marks, etc. I found it to be just about as represented by the segregation line on the map; the line running from Cole's Bridge to the road was established by me in the course of my surveys in 1877, when I was operating on the Lake Ranch; that line runs from Cole's Bridge eastward along the north side of Buena Vista Lake; the black line upon that map, shaded with green, is correctly platted, as representing the high water mark of 1877; that is through the Lake Ranch



956 and as far east as Old River; from there eastward it is a high water mark of 1874 and 1876, as pointed out to me by the other parties whom I have named. The Cunningham place is correctly represented on this map, and the artesian well; Mr. Stockton's place I know to be correctly noted; the Dairy Ranch is correct; the lone tree I know to be correct, and also the boat-house. Those are all of the prominent points; the Lake Ranch I have mentioned before.

Q—Have you ever estimated the area contained in that high water line?

A—Yes, sir; it is a little over 61,000 acres; the plat-  
957 ting of the high water mark was made from surveys made by myself at various times, and it is correctly platted on that map; that 61,000 acres includes both the lakes and the slough adjoining, and the overflowed lands between the lakes. All of the measurements in that map are correct, to the best of my knowledge.

#### Cross-examination of

T. R. FILLEBROWN.

(By Mr. HOUGHTON.) I located the high water line  
958 on the south of these lakes from the 1st to the 5th of this month; the line along the south line of Buena Vista Lake is the segregation line; I ran in from the section corner, which is south of the lake, to that segregation line, and almost all the distance around there it is a bluff bank, and the tules are growing close to the base of the bluff; so that any raise in the lake cannot materially affect the acreage of that side; if the water should rise in the lake it would not cover any materially great amount of surface.

Q—When did you fix the line on the south of Tulare  
959 Lake?

A—From this point along there. (Showing.) I took it from the segregating line of the Government surveys, having made an actual survey myself, one point on the south and one on the west side.

Q—Then you have not actually fixed that line on the south side?

A—Not east of the point designated by the line that I have described as the faint black line, shaded with green.

Mr. McALLISTER—The question of Mr. Garber is, whether all the measurements on that map are correct?



960 The WITNESS—To the best of my knowledge they are.

Mr. McALLISTER—I prefer that counsel call the witness' attention to the particular measurement that they want. There are measurements on Goose Lake and different parts of the map.

Mr. HAGGIN—That has reference to the line described.

The question of Mr. Garber is read, as follows:

“Do you say that all the measurements are correct on that map?”

The WITNESS—I understood the question of Mr. Garber to refer simply to this location.

961 Mr. HOUGHTON—Then your answer is that they are correct as far as within this high water line?

A—Yes, sir.

Mr. HAGGIN—And as to the points which you have designated?

A—Yes, sir.

Mr. HOUGHTON—Do you say that you ran levels from the boat-house to prove your work—down to the water surface in Kern Lake?

962 A—It was done; yes, sir. I don't remember exactly what was the difference in elevation between the surface of the water in Kern Lake and the boat-house; in the vicinity of sixteen feet; I found that to correspond with the difference in elevation between the water in Kern Lake and the high water line east of the Livermore Ranch; I cannot tell you how much water there was in Kern Lake at that time; the water in Kern Lake was very low.

Q—How did you get the high water line along the south side of the slough connecting the two lakes?

963 A—By first starting at the high water line, as pointed out to me on the north side of the lake by Doc. Stockton and his son, and others, and running the line of levels directly across the slough on the range line between Ranges 26 and 27. I ran across to the high water mark on the south side, and then turned and ran due west three miles; then turned and ran due north until I came to the high water line again, and continued that line again until I came to the main channel of the slough.

Q—In running that first line from the point designated by Doc. Stockton across there, what was the difference in elevation between the point you started from and the centre of the slough you spoke of?

A—It was a little more or less than 16 feet. That



964 slough where I struck it was about 100 feet wide; there was no water in the slough, except stagnant water in deep places.

Q—Where you struck the slough again, three miles west of that, what was the elevation of that compared with that pointed out by Mr. Stockton?

A—I didn't run levels down to that point; I only took a measurement, without running the levels, to determine the high water mark, and took levels at one point on the south side, but didn't continue my levels west; I took my high water mark at the western point of elevation.

965 Q—What is the difference between the elevation at the bed of that slough and the high water mark that you took immediately south of it?

A—It is about sixteen feet.

Q—How wide is the slough at that point?

A—It is the same as the other point—100 feet.

Q—Did you cross that slough at any other point?

A—Not on the regular survey; I crossed it in returning to my camp at the artesian well, Sec. 25; I crossed it somewhere between the westerly point and the easterly one, following up the slough eastward from the point where I last struck the slough until I came to a favorable crossing. I was obliged to hunt some place for a crossing on account of the slough being boggy; I did not cross it but twice; there was but little difference in the width of the slough along there; it was little more or less than 100 feet; the extreme high-water line which I established along there was pointed out as the high-water line of 1874; the extreme high-water line of that year; the line along by the Lake Ranch, south of the Buena Vista Ranch, is the line established by my own surveys from time to time during 1877—probably not quite as high as the other line, but the highest reliable water mark I was able to obtain; in running this line I made a connection on Buena Vista Slough at Cole's Bridge.

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Q—What kind of a slough was it from the lake to Cole's Bridge?

A—It was a pretty deep slough; I could not say how deep; when I made the survey in 1877 the water was running into Buena Vista Lake; the other lakes were not full at that time; that was during the spring of 1877, down to May or June.

Q—In May or June was the water running into the lake?



968 A—The last time I was there it was.

Mr. GARBER. Q—May, 1877?

A—Yes, sir; I cannot positively say it was in May or June that I left that ranch, but the last time I was there the water was running into the lake; I did not go further down Buena Vista Slough at that time. I am in the employment of Haggin & Carr and have been since the last time I entered their service, about two and one-half years ago; I have been in their service two or three different times, but there was a little interval of time that I was not. I am not Deputy Surveyor now, and have not been since the beginning of the present term.

969 Mr. Macmurdo is now the County Surveyor.

#### Re-Direct Examination of

T. R. FILLEBROWN.

Q—Have you been in the employment of Miller & Lux?

A—No, sir, I have not; perhaps I might modify that; I did two or three days work for Mr. Crocker, one time running lines on one of his ranches down here when I was Deputy County Surveyor; I presume that was for Miller, Lux & Co.

GEORGE H. MENDELL,

A witness for the defendant, being duly sworn, testified:

(By Mr. HAGGIN.) Q—Where do you reside?

A—I reside in San Francisco; I have been there for the last fourteen years or more; I am a Lieutenant-Colonel of the Corps of Engineers in the military service of the United States; I am Consulting Engineer for the State in its engineering work—assistant to the State Engineer.

Q—Have you had any experience in the investigation of waters, rivers, etc., in this State?

A—Yes, sir; I was one of the Board of Commissioners of which there were three appointed by the President in 1873, and made a general examination of the water systems of the State in connection with the subject of irrigation of the great valley; I have also been Engineer



972 for the City of San Francisco in its last investigation for water supply. As an officer of the Government I have charge of the improvements of the Sacramento and San Joaquin rivers and of the several harbors adjacent.

Q—In connection with your business as engineer and in investigating of the waters of this valley have you had occasion or did you have occasion to visit this portion of the valley?

A—I was here with the Irrigation Commission in the spring of 1873, in the month of May, and made a general examination, taking the general features of the water system of this part of the country, with a view to  
973 its employment for irrigation. On that visit I saw Kern Lake; I was on it; I did not see Buena Vista Lake.

Q—What portion of Kern Lake were you on?

A—We struck the shore at a place called the Club House, on the southern end of the lake, on the road to San Emidio.

Q—Was that also known by the name of the Boat House?

A—I don't know, sir; my recollection is it was called the Club House; I have not seen it but once; it might have been the Boat House possibly; I don't know that it was called; there was a little house there set up on  
974 stilts four or five feet high, and a little bit of a wharf running off from the shore out into the water so you could get into the boat; it was itself a boat house, whatever it was called; I understood at the time that it was a place of resort for hunters, who went there or kept their boats and shot game on the lake.

Q—Did you go upon the lake on that occasion?

A—Yes, sir.

Q—Did you make any soundings of the lake at all?

A—Yes, sir, we sounded; we went out, I suppose a couple of miles into the lake, though I can't be certain in regard to the distance; the deepest water we found,  
975 to my recollection, was sixteen and a half feet; that was a long distance out. This boat house that I spoke of was on the edge of the lake. My recollection is there was a little bit of water right under the house. This was in the last week in May in 1873.

Q—Could you, by referring to the map, locate about where that house was?

A—Well, in general terms, yes, sir; I would not attempt to locate it in sections, because I don't know anything about those; I know, in general terms, where it was.



976 Q—There is a point on the map (referring to Map I) marked "Boat House." Will you look at that and see whether that is about the place?

A—Yes, sir, it was at the southern edge.

Q—On Map I?

A—I see a place marked Boat House; I presume that is it, sir; I don't see any reason to doubt that it is, though I don't pretend to say that it is absolutely that.

Q—Have you made subsequent visits to this country since then?

A—Yes, sir; I was next here in November, 1877, and recently, within the last two or three weeks.

977 Q—During those visits have you had occasion to investigate the general features of the waters of Kern river? Their general course?

A—Yes, sir; I have had an opportunity of observing the general features of the country with a view to its drainage, and have done so. In my visit in 1877 I went down within several miles of Buena Vista Lake. I was not anywhere near Kern Lake, but I went down to a place where they were building some gates; at what is now Cole's Bridge. There were some men at work there in November, 1877; they had some timbers there and appeared to be putting in gates with a view to controlling the water, I supposed; I was only there for a few moments; I didn't make any particular examination of it; I just happened to be there and observed that fact.

978 Q—From your investigations of this country will you give the result of your observations as to the drainage of Kern river; the general drainage of this body of water; where it lies; in what direction?

A—Well, generally my view with regard to the drainage of the country—of course its present drainage is quite obvious to anyone who goes and looks at it; the past drainage has been more or less modified and more or less different from what it is at present; there are a

979 good many evidences of that; the condition of things, as I understand it and what I have observed, leads me to judge is: That the river upon emerging from the foothills enters upon this sandy plain; in one sense it may be called its delta; I think it is. That is the view I have had and expressed in some remarks I made on the subject several years ago—that it is in one sense a delta. It resembles a delta in this, that it divides itself as a general rule into more channels than one; and in another respect—it is my opinion that the portion of the country that lies below the foot-hills has been;



- 980 formed mainly by the river itself; the river has built it up; brought sand from higher altitudes and deposited it in the various channels that the river has occupied. The result of it is the present condition of this plain or delta. Now, taking the river here in the neighborhood of Bakersfield, or about where the railroad bridge crosses it, and looking from that point to find out where is the maximum slope, the line of steepest descent from the reservoir to the place where the water could go, that line is down towards the lakes. The fall in that direction is according to the point you take it from, perhaps seven and a half feet per mile. When you take  
 981 the present direction which the water follows down New River, by which part of it reaches the lake, the fall there is less. So far as my observations—so far as my knowledge goes, this line towards the lake being the line of steepest descent and the shortest line, is in my judgment the natural drainage direction of this country, although to-day not absolutely, not in any absolute sense, the drainage line, because the water does not all go to the lakes now; a part goes to the north and part goes to the lakes. But if you were to ask me the question where it was natural for this water to go, all circumstances being equal, except the declivity, this being  
 982 the line of maximum declivity, the water would naturally run in that direction—towards these lakes.

Q—Then I understand you to mean that the natural line of this water is toward the lakes?

A—Yes, sir; the slope of the ground, the slope of the country, determines that. I consider that the natural drainage.

- Q—In examining this country from the foot-hills, where the water first enters upon this plain or valley, a few miles easterly from Bakersfield, do you find any indications of a permanent channel? What is the  
 983 general appearance you have found as to the permanency of a channel?

A—I think there are evidences here on the ground, and corroborated by what I understand to be the history of the country, as I have acquired it, that this river has occupied in past times a number of different positions; there are evidences of it shown on that map, supposing that to be a correct delineation of the ground, of the line of drainage. Take Old River, take Buena Vista Slough, or Panama Slough, all those lines down there; they seem to have been at one time channels for the conveyance of the water, and all of them, you might



984 say, point towards those lakes. Then, again, there is evidence of this water having at one time gone out toward Goose Lake, to the westward; then there are a number of indications in the ground of ridges and depressions, which I think must convey the impression to the mind of any one who observes them that the river has at different times occupied different positions, perhaps many that are not now evidenced by anything you see on the ground.

Q—You spoke of finding a bridge or gate being constructed across at Cole's. That was across Buena Vista Slough?

985 A—Buena Vista Slough; yes, sir.

Q—You spoke of the waters dividing there, and part going towards Buena Vista Lake and part towards the north. Do you confine that remark? Is it a general remark, or do you confine it simply to the waters of New River?

A—No, sir; I only speak of what I have seen since I have been here this time. I have seen the water divide and go in the two directions; that is a short distance below that Cole Bridge; about where the river empties into Buena Vista Slough. There was some gate or weir being constructed across this slough below where the water emptied, between that and Buena Vista Lake, below where it goes in now.

986 Q—Is such a work calculated to obstruct the flow of the water at all?

A—Yes, sir. It encroaches on the natural water way.

Q—Suppose that there were a dam thrown across the slough at this point that you speak of, Cole's Bridge, and the channel completely obstructed there, what, from your knowledge of the country, the formation of the country, etc., would be the result of such a work?

987 A—Well, that water which now runs through that channel of Buena Vista Slough past Cole's Bridge into Buena Vista Lake being no longer able to go there would be obliged to take a northerly direction towards Tulare Lake.

Q—Would such an obstruction have any effect upon the channel itself?

A—It would have an effect, yes, sir; the tendency of an obstruction of that kind in forcing this water to go to the north would be for that water to make a channel for itself in going to the north, and to enlarge the existing channel if that channel had not been accustomed to carry that quantity of water, now being called upon



988 to carry it, the tendency would have been to enlarge this channel that it would have followed towards the north.

Q—How about that to the south?

A—Well, that portion to the south, between that and the bridge or levee that you suppose to be there at the bridge, the tendency there would be the opposite, the converse; the tendency right at that place would be to cause a deposit in case the river is a sediment-bearing river—bearing down sand and other sedimentary matter. That would become in there a quiet place; the direction of the current being off in the other direction,  
989 this being a low place and there being no current in it, would naturally become a place of deposit for the sediment that was in the water; a quiet place. So the tendency there would be to fill that place between the bridge and the mouth of the river, and then changing the course of the stream as it flows to the north below there the tendency would be to enlarge the channel.

Q—You say the tendency of a sediment-bearing stream; do you know whether this Kern River is such a stream as that?

A—Yes, sir; it bears sand. The view I have given with regard to the formation of this delta indicates that,  
990 so I consider that it is a stream of that character.

Q—So an obstruction placed across any part of the channel of the river, or of the slough, would have the tendency, you say, to build it up?

A—Yes, sir, and to cause an enlargement of the channel in the other directions.

Q—Have you ever made any measurements of the waters there which divide those going north and those going south?

A—Yes, sir, I did on two occasions; once about three weeks ago and once some days later.

Q—Where were those measurements made?  
991

A—One measurement was made in the slough to the south of Cole's Bridge, between that and Buena Vista Lake; I suppose one-third or half a mile below the bridge, between the bridge and the lake. The other one was made at the ford.

Mr. McALLISTER—You say a measurement made south of the Cole's Bridge one-third of a mile below; you mean above, don't you?

A—Any way you please to take it; sometimes it is below, sometimes above; I mean between the bridge and the lake.



992 Mr. HAGGIN. Q--Do you term that above or below?

A--When the water was running into the lake I would term it below; if the water was running out of the lake I would term it above, in that sense, in regard to the running of the water; I don't mean by that term to convey any impression in regard to that; it is between the bridge and the lake; the water was running into the lake at that time, so that it was below, in that sense; the other place was at the ford, where the road crosses it; I should think two or three miles, by the time we were driving it, to the northwest of the point just referred to; at that last ford the water was running north and at the first point it was running in a southerly direction.

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Mr. HAGGIN--When you first made those measurements what amount of water did you find running south to the lake, at this point you mentioned?

A--I found about 370 cubic feet per second.

Q--And what amount did you find at the ford to the north?

A--Just about half that, almost exactly half of it, that would be 185 cubic feet per second; that was on the first occasion.

994 Q--In the course of your business have you had occasion to make any investigations as to evaporation?

A--Yes, sir, I have had to come to some conclusion with regard to it in connection with the water supply of San Francisco, which led me to look into the subject, what had taken place elsewhere in the world, and the conditions which govern evaporation. I have made some calculations as to the amount of evaporation of Kern and Buena Vista Lakes. I think the probable amount of evaporation--of course I say probable because it is not a matter that has been observed for the year, although there have been some observations taken as a guide--in taking those observations which have been made on the lake as a guide I consider that five vertical feet evaporated from the sheet of water is a fair, moderate statement of the probable amount of evaporation in a year.

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Q--Have you made any estimate of the average evaporation from the surface of those lakes other than the mere vertical amount? Have you made any estimate of the amount in cubic feet evaporated?

A--Yes, sir; that follows very readily when the area of the lakes is given. I ran over a calculation of that kind.



996 Q—Have you yourself made any computation of the area of the lake as shown in this map “I”?

A—No, sir.

Q—Assuming the area to be 61,000 acres, what would you obtain from that?

A—Well, I would have to refer to some figures; those are big figures now, 61,000 acres; I have run over a calculation at 55,000; by adding one-ninth to that it would be very near it.

Mr. GARBER. Just give it on the 55,000, and we can make the other calculation.

997 A—Eleven thousand five hundred millions of cubic feet in a year. The five feet refers to a year, and this in cubic feet refers to a year also, supposing that the area over which the evaporation takes place is 55,000 acres. That evaporation is not uniform throughout the year; it depends on the temperature and the dryness of the air principally or largely; also depends upon the wind; the greatest evaporation is in the summer, commencing in May, May to September; for two reasons—first, that the temperature is higher; second, that the air is dryer.

998 Q—What would be the proportion between the evaporation in the extremes of summer and winter? How much more would the summer evaporation be?

A—In the middle of the summer, compared with the winter, it would be five or six times as much per month, perhaps more: from winter to summer the increase is gradual, and the reverse is the same; it proceeds with some regularity.

#### Cross-Examination of

GEORGE H. MENDELL.

999 Mr. McALLISTER. Q—You spoke, Colonel, of being one of the Board of U. S. Commissioners in 1873 who made a report on the subject of irrigation—who are the other members of that Board?

A—General Alexander and Prof. George Davidson.

Q—You visited here at that time in May, 1873, how long did you remain in the valley at that time, this place or in this neighborhood?

A—I think three or four days, sir; several days.

Mr. HAGGIN. One moment; I don't know whether I understood the Colonel.



1000 Q—When you spoke of the annual amount of evaporation as eleven thousand five hundred millions, whether you mentioned what the measurement was?

A—Cubic feet, sir.

Q—Cubic feet?

A—Yes, sir.

Mr. McALLISTER. Q—You say you were on Kern Lake, as I understand it, in a boat, Colonel?

A—Yes, sir.

Q—Did you go on the connecting slough between Kern and Buena Vista Lakes?

1001 A—No, sir; I did not see Buena Vista Lake on that trip; I did not go there; I did not go to the neighborhood; we went to San Emidio; that was the way we happened to see Kern Lake, in passing by on our journey to San Emidio.

Q—Was there anything intervening between you and Buena Vista Lake, when you were on Kern Lake, to prevent you from seeing Buena Vista Lake, except distance?

A—I don't know whether there was or not; there might have been tules; I don't know.

Q—How many soundings did you take at that time on Kern Lake?

1002 A—Quite a number; I don't remember; the deepest water I found was sixteen and a half feet; we took other soundings than that toward the shore; we started from the shore and ran out; these other soundings commenced at nothing at the shore; at this little wharf; we stepped off the little wharf into the boat and then followed out, taking soundings very frequently, and found very little water, just what would float the boat; then it gradually deepened, and very slowly for a long while, as I remember it; at the last, however, the soundings we quit with were in the neighborhood of sixteen, fourteen, fifteen feet.

1003 Q—What I was trying to get at was, could you give me those soundings as they varied as you advanced from the shore?

A—No, sir; I cannot give you them in any other way than that. The object of our going there was, we had some discussion as to what the depth of the lake was; we found a boat and concluded we would go and settle that point as well as we could; that was the only point that left any particular impression on my mind; we went about two miles into Kern Lake from the south side.



1004 Q—During those two miles what would be the average depth of the water?

A—It might have been—I will have to give you a sort of guess on it, sir—it might have started at six inches or a foot where the boat was floated, and perhaps three or four feet at the end of a mile; I really don't remember that; as I tell you, I had only one object to fix in my mind and that was the maximum depth; it was very gradual, I remember that; we were a long time before we got any great depth of water; I don't know what the width of the lake was there at the widest point; we did not go to the center of the lake; in making this trip I don't think that we went to the center; we went until we got that depth of water; we found out then we did not get any deeper water; I could not say we went to the center of the lake.

Q—Then you made a visit here in 1877, as I understand?

A—Yes, sir; I came at that time, at the request of Mr. Haggin, to make a report upon the subject of desert lands; the same gentlemen, General Alexander and Professor Davidson were with me.

Q—That was your report in reference to desert lands?

1006 A—Yes, sir; I was not investigating anything in connection with Buena Vista Slough or these lakes at that time.

Q—You say that the appearance of the country shows that the drainage of Kern River has been modified during different years, at various times, as I understand?

A—Yes, sir.

Q—You say that the more direct drainage and the more abrupt descent is towards Kern Lake or Buena Vista Lake?

A—I think rather to the Kern Lake; the distance is a little shorter.

1007 Q—What is the difference in the elevation between Bakersfield and Kern Lake?

A—It is about 120 feet, sir.

Q—And the difference between the elevation of Bakersfield and Buena Vista Lake?

A—Well, I don't know what the elevation of Buena Vista Lake is; I suppose, from being connected, they are about the same level, in which case the elevation would be the same.

Q—The history of the country, as I understand it, shows that there was a large flow of water here in 1862?

A—Yes, sir; a flood.



1008 Q—At which time the flow of the river changed from the South Fork to Old River. Have you any means of accounting for that change?

A—Well, no, sir; except in a general way, that that is a river that in my judgment is very easy to change, and a flood, with circumstances and accidents, might easily change it. I would not be at all surprised to see it change in any big flood of that character.

Q—Then in 1868 there was another flood, and the course of the river seems to have been, if not altogether, yet to some extent, changed from Old River to New River. You can ascribe no particular cause for that, I

1009 suppose?

A—No, sir; other than the flood itself—the accidents of the flood.

Q—You say that from the railroad bridge down towards the lake the descent is about seven and a half feet per mile, and the descent down New River, or fall, is less. What is the fall along New River, the channel of New River?

A—It is in the neighborhood, sir, I think, of about six feet; it depends on the number of miles; in the neighborhood of six feet, may be fractionally more or less.

1010 Q—What is the elevation of Bakersfield, Colonel?

A—It is about in the neighborhood of 400 feet, sir; I don't know exactly; a little less than 400 feet above the level of the sea. It is something less than that; not very much, I think.

Q—You spoke of a point, Colonel, where the waters of Buena Vista Slough divide, part going north and part going south. At what point would you fix that divide, looking on Map I?

1011 A—It is in this neighborhood there sir, (pointing on Map I). I cannot fix it within a few feet; about where the south fork of New River comes into Buena Vista Slough at Cole's Bridge; just north of Cole's Bridge a little distance.

Mr. M. ALLISTER—That is marked Cole's Bridge on the map; did you notice whether at that point the south fork of New River came down there with two branches or with one? Did you notice anything with reference to that, whether there was two branches of south fork close together, as represented on Map I?

A—Yes, sir; it came down there in two branches; my recollection is there was a little stream coming down



1012 in addition to this; coming across here, and running down to the lake. (Pointing on Map I.)

Q—Further south, then?

A—Yes, sir; a little bit of a stream of water.

Q—Do you know whether the point of division is to the south of the point where the south fork comes in, or just at the point where the south fork comes in?

A—No, sir; I don't know exactly. It is about that place.

Q—How far to the north of Cole's Bridge is this divide that you noticed?

1013 A—I didn't notice the divide, sir, in this case; I noticed on one side that the water ran one way and on the other the water ran the other way; I didn't go on the ground where the water parted. The fact that I observed shows that there is a divide there; that is about the way they are; I did not go on the ground where the water actually parted to see the exact circumstance of its parting.

Q—I only want to understand you, Colonel. You say at some point about Cole's Bridge you noticed that the waters divided, and a portion of the waters went south and a portion north?

1014 A—Yes, sir; I noticed that in this way—that at the bridge, when I was at what is called the bridge, the waters ran in there; then going some distance below from there, I noticed that the water was running the other way, so intermediately between there there was some point that the separation took place; I didn't fix that point absolutely in any other than a general way.

Q—There was no obstruction at the time you made those observations there on Buena Vista Slough about the dam; that was broken away, wasn't it?

1015 A—Yes, the dam was broken away; there are some remains or something under the water there; I don't know what it is, sir; it may be timbers or something.

Q—But there is no obstruction across the slough at Cole's Bridge at this time?

A—No such obstruction as would prevent the flow of water; there is something there that is an obstruction to the flow in some degree, but not a complete obstruction.

Q—What was the first day of your observations there, that is during your recent visit, the precise date?

A—It was, I believe, sir, on the seventeenth day of April; then I was there again and made observations on the thirtieth day of April.



1016 Q—Have you given us the results of the first measurement or the second?

A—The first, that of April the 17th.

Q—Now, then, will you be kind enough to repeat your first measurement at the point to the north of Cole's Bridge?

A—Going to the south, 370 feet per second; going in the other direction, to the northwest towards Tulare Lake, the half of that, 185 feet per second.

Q—Now, with reference to the second measurement, you say that you made a measurement below Cole's Bridge, to the south I would say of Cole's Bridge?

1017 A—Yes, sir.

Q—What did you find there did you say?

A—I gave you that, sir; to the south of Cole's Bridge, 370 feet going to the lake; all of that 370 feet of water was going to the lake. That was April 17th; on the same day there was 185 feet going to the north, that is, two-thirds of the water was going to the lakes and one-third going to the north.

Q—Well, now, the second measurement; at what point did you make the second measurement?

1018 A—I made it at the same points, sir; one north of the bridge, and one south of the bridge; that was on the 30th of April.

Q—What was the measurement to the north of the bridge on the 30th of April?

A—Going north, I measured at the ford there, going to the north, 438 cubic feet per second, and going to the south 567 feet.

Q—That was the measurement to the north of the bridge?

1019 A—The first one, the measurement I gave you, was to the north of the bridge, and the second one was to the south of the bridge; that is, the first was the measurement going north, which was running north, and the other was the measurement of the water which was running south; the amount going south to the lakes was 567 feet, the amount going north was 438 feet.

Q—When you took the measurements to the north of the bridge, you found so many feet of water running northward, I understand you?

A—Yes, sir.

Q—Well, does that embrace all the water at that point?

A—The measurement of the water which was going to the north was made a mile or two north of Cole's



1010 Bridge; there is a ford going across there a little over two miles north of the bridge; all the water at that place was running north. At the measurement that I made south of Cole's Bridge all the water there was running south, and the sum of those two made the amount of water running there.

Q—Can you state whether those measurements were measurements of the total amount of water that was running in New river, or the total amount of water discharging from New river into Buena Vista Slough from the various forks of New river?

A—Well, I suppose it to be the sum of those two,  
1021 sir; I added together those two; that is the best practical method of ascertaining what there is down there running at the mouth of New river; it would be to take those two places, find convenient places to gauge them, and add them together.

Q—There seems to be considerable difference between your measurements—the first measurement and the last one?

A—Yes, sir; the river was much higher; there is also considerable difference in the proportion.

Q—Is there any explanation of that that occurs to you?

1022 A—No, sir; it is a fact, that is all.

Q—You have spoken of the evaporation of Kern and Buena Vista Lakes—what are the elements, what are all the elements of your calculations upon that subject?

A—The elements are as a foundation for it; the experiments that were made and carried on by the State Engineer's department in the Kern Lake, I think in the year 1879, which were published in their reports, then the temperature and humidity, these not being observed here, however, for the reason—well, for the reason that there has been no observations of that kind  
1023 here; they were observed at Visalia; that is the nearest point. There is a signal station at Visalia where the government conducts those observations—that is, the U. S. Government. That was the only method I had of arriving at a conclusion in regard to those important elements, to take them from the nearest point subject to the same general climatic conditions as far as I know, and apply those observations made at Visalia of temperature and humidity and assume them to be the same here. Those observations taken at Visalia were not taken by myself; they were taken by—I have his name here (consulting memoranda)—J. H. Haynes, I believe, is his signature.



1024 Q—What other observations besides those last mentioned formed the basis of your calculations; something about observations on the lake, you said?

A—Yes, sir; observations that are recorded; observations of evaporation that are recorded on the lakes by the State Engineer's Department.

Q—Then your calculation is based first upon observations taken by the Federal officers at Visalia, and upon observations taken on the lake by the State officers?

A—Yes, sir; checked more or less by what I know or what the record tells me of the evaporation in other parts of the world. I think those observations taken on the lake were taken by Mr. Schuyler; they are found printed in the report of the State Engineer; they relate to the evaporation for the month of September of water contained in iron pans floating on the lake, and submerged in the lake, and the observations therein described.

Q—Is your calculation, based upon the proposition that the area of water in those lakes always remains at an area of 55,000 acres?

A—The amount that I gave you, that gross amount is based on that; yes, sir.

1026 Q—Of course, if the volume of water in the lakes gradually diminishes in the summer season, and the area becomes very much less, then by so much is the evaporation less.

A—Yes, sir; reduced in the same proportion.

Q—You have no personal observation or personal knowledge of the amount of supply from Kern River and its various branches to the lakes?

A—No, sir; other than those I have mentioned on those two occasions.

Q—Have you ever taken an account of the volume of water flowing in Kern River?

1027 A—Yes, sir; that is, the part that passes the Pioneer Bridge on New River. I took those observations since I was here this last time, about the same time these other observations were made; at the time of the first observation at the Pioneer Bridge there were about 630 cubic feet per second flowing by the Pioneer Bridge; that was on the 10th or 11th of April, 1881. On the 30th of April I believe it was considerable more. To state it from my recollection, it was in the neighborhood of a thousand feet; the river was considerable higher.



1028 Q—Did you make an estimate in 1877 or 1873 of the amount that you found flowing in Kern River?

A—I think we did, sir, in 1873; according to my recollection that estimate was 2,500 cubic feet per second.

Q—That would be at the railroad bridge?

A—No, sir; it is up at Jewett's place, some ten miles I should think above Bakersfield; something like that; my recollection is that that and the place where we crossed the river on the stage were the only places where we saw the river and I recollect we were on its banks; that is my recollection at present.

1029 Q—Assuming, Colonel, that a certain amount of water comes down New River through what we call the South Fork and empties into Buena Vista Slough there, (showing on Map I), and then runs south to the lake, and that another volume of water comes down through the middle fork of New River and as it reaches Buena Vista Slough runs north or northwest, would not the effect of that flow of water be to create a bridge or divide between the middle fork and the south fork of New River on Buena Vista Slough?

A—I think the effect of it through those channels, running in different directions, would be to make a place similar to that I mentioned at Cole's Bridge, to cause a deposit of sedimentary matter.

1030 Q—A kind of back-bone, wouldn't it, between the two forks?

A—Yes, sir; a kind of deposit, there being no current there.

[The Reporter reads, at request of Mr. Garber, the last two questions and answers.]

1031 The WITNESS—That is not quite clear; I did not make myself clear in that part about Cole's bridge; I mean by that to say, similar to the place that I described before to a question asked me by Mr. Haggin with reference to the levee being across there; that being a quiet place, the sediment would be deposited there.

Re-direct examination of

GEORGE H. MENDELL.

By Mr. HAGGIN. Q—Now, Colonel, Mr. McAllister has assumed that the water comes down the middle branch and the south branch. I understand you to say it would have a tendency to leave a deposit between the two branches?



1032 A—Yes, sir; that is my judgment.

Q—Let us assume a little further, that the water in the middle branch ceases, the water in the south branch still continues to go down, and is prevented from flowing into the lake by a bridge or dam crossing Buena Vista Slough, immediately south of where it empties. What action will that have upon this deposit which has been made already?

A—I should think it would wash it away.

Q—Wash it away?

A—Yes, sir; whatever channel has running water.

Q—And leave the deposit which it formed at Cole's  
1033 bridge?

A—Well, let me get that.

Q—Would the water then at the south branch—assuming that that is the sole branch—leave the deposit that has formed south of it?

A—The levee being still there?

Q—The levee being still there?

A—Yes, sir; in my judgment.

Q—And that water flowing northward, has it a tendency to deepen the channel at all?

A—Of course there is more water goes; as the channel is made to carry more water, its tendency is to  
1034 enlarge and deepen.

Q—To enlarge and deepen it?

A—That is the way we do; that is the way we improve our rivers, by making more water go through the channel.

Q—You said, Colonel, that when you made those measurements of the water running north and south, there was an opening at the bridge. By that do you mean to say that all obstructions to the free flow of water there were completely removed?

A—No, sir; there is some obstruction; I don't know  
1035 what it is.

Q—There is some obstruction, apparently, still?

A—A part of it, of course.

Q—Did you notice whether the water in passing through the bridge at all was narrowed in its channel, or not?

A—Yes, sir; it runs in a narrower channel there.

Q—Does not that have the effect to check back the water in there?

A—Yes, sir; I think, to some extent, yes, that and the construction of the bottom of the dam.

Mr. McALLISTER—There is one question I want to



1036 ask the Colonel. You spoke of the measurement of Kern River at the opening of the bridge, the Pioneer bridge, was that measurement made to the south or north of the bridge?

A—Right at the bridge from the south. The discharge from the weir, right where the water discharges through the weir, directly under the bridge, south of the Pioneer Bridge.

1037 Mr. McALLISTER. Before the Colonel leaves the stand, your Honor, I think it would be proper for me to make a motion. This calculation of the Colonel's in reference to the evaporation is not based upon his own observations, but it is based upon observations made by Federal officers of Visalia, and also upon certain observations made by the State Surveyor. If these observations had been made by the Colonel we would have been entirely content with them; but as they are made upon information derived by him from others, I move to strike out that calculation from his testimony, on the ground that it is hearsay, or based upon hearsay.

Mr. HAGGIN. Have you that memorandum from the U. S. office at Visalia?

1038 [The paper is produced by the witness.]  
The motion is granted and defendants except.

Mr. HAGGIN. Q—Now, Colonel, I ask you then whether you cannot, from your own observations of this country from the time that you have been here, give an approximate idea of the amount of evaporation yourself?

A—Yes, sir. No, sir; I don't think I could. I would not trust my—of course, I might have an opinion about it. I suppose it would be considerable.

Q—What is that?

1039 A—I say I suppose it would be considerable from what I know about it; but to come down to a specific answer in regard to that subject, I cannot give it.

Q—Can't you say, without pretending to know whether those observations were correctly made—can't you say that within a certain limit there must be a certain amount of evaporation there, from your general knowledge of the subject?

A—Oh, yes. I know there must be a very high evaporation here.

Q—Can you say whether or not the amount you gave is a low estimate of that amount?



1040 A—I consider it to be a very moderate statement of what is, in my judgment, the evaporation.

Q—You believe, then, without regard to the actual truth of these observations, that at least there is that much evaporation there; that is your opinion?

A—Yes, sir; I state that as my opinion. Of course my opinion is based more or less upon the observations.

Q—If you never had seen those observations, would you say that in your opinion there was at least as much as 5 feet vertical evaporation?

1041 A—Yes, sir, I should have said it; but I don't think I would have been able to come as near demonstrating as I can now.

Q—We are not speaking now of demonstration. You think you would be safe in saying that there would be at least that much evaporation. That would be your opinion?

A—Yes, sir. Of course that relates to my general acquaintance with the country here; its dryness in hot weather, in the summer.

Q—And that is based upon your observations at San Francisco, isn't it?

1042 A—Well, my acquaintance with what is recorded as the evaporation in other countries.

Q—This paper, Colonel, has a certificate upon it, or affidavit, that it appears upon the records on file in the U. S. Signal Stations. Are those records kept in pursuance of any law, do you know?

A—Yes, sir; by an officer of the Government.

Q—And that is his duty, is it?

A—Yes, sir; there is a bureau in the War Department, called the Signal Service Bureau, which conducts those observations. It has observers scattered all over the country.

1043 Q—Do you know whether this is a copy of those records?

A—I know nothing more about it than what the paper itself conveys.

Mr. GARBER—We will ask your Honor to set aside the ruling striking out the testimony of Col. Mendell, with the understanding that counsel may renew it unless we prove the fact of these observations by competent evidence.

Mr. McALLISTER—We would like to cross-examine Col. Mendell as to the new statement.

Mr. GARBER—Certainly. That is another matter.



1044 The COURT—Very well.

Mr. McALLISTER—What is the basis of your present approximate statement as to the amount of evaporation in those lakes, irrespective of the observations and information derived by you from others or from the reports of others?

A—Yes, sir. Well, I have such an acquaintance with the country that makes me know that it is extremely hot in the summer and very dry. While I never measured that to any degree with instruments, still I know that it has been measured in other counties in other parts of the valley. And I have observed it in other  
1045 parts of the valley. I know the weather in the time I have been here. For instance, in May, 1873, I know we struck a very hot time.

Q—Undoubtedly. But you can make any statement here to a moral certainty as to the amount of evaporation on those lakes based on the general knowledge you have, that evaporation goes on in hot weather?

A—No, sir; I don't pretend to say that I gave that as my opinion in the matter.

Q—But the calculation, Colonel, must be based upon certain data?

A—Well, sir, I gave my calculation on the data, that  
1046 is all.

Q—Now, then, after striking out all the data, how can you arrive at that calculation?

A—Well, Mr. McAllister, this way: I know it is recorded in Bombay, where the humidity of the air is a good deal more than it is here, that the evaporation amounts to 80 inches a year. I know that the engineers in France take four and a half feet—make an allowance of four and a half feet—evaporation there in their hydraulic works. I know that in Madrid the records of evaporation there have been 65 inches.  
1047 These come in, of course, as a part of my general knowledge on the subject. And in San Francisco, on the lakes, on that water supply of San Francisco, I assumed the evaporation to be 5 feet. I thought that was a liberal allowance for San Francisco, but of course, I wanted to be on the safe side, because it was an important matter.

Q—What I want to get at is, what are the elements or data upon which you make that statement, that the evaporation here amounts to 11,500 million cubic feet in a year?

A—That I gave you based on those observations.



1048 That is the question. You asked me for my general information about it. It is my general knowledge of the whole world, whatever I happen to know.

Q—What I want to get at is, can you, entirely ignoring all the observations of Federal officers at Visalia, and all the observations of the State Surveyor's department of California, can you, from having seen those lakes, and from your general knowledge of the climate here, give us a calculation as to the amount of evaporation?

A—No, sir; I cannot give you a calculation. I give you my judgment on it for what it is worth.

1049 Q—Suppose you had never had those observations or data, would you undertake to make a statement of the amount of evaporation?

A—No, sir; I would not on any matter in which important consequences depended.

Q—A man cannot make a calculation unless he has some data to go on?

A—No; sir; there are a great many things, though, that we form a judgment about, from multifarious knowledge and information that comes from history in other parts of the world, that goes to help form the judgment. The climate of Madrid I happen to know  
1050 —my reading tells me that the climate of that part of Spain is quite similar to this in California. I happen to know that observations there show an evaporation of 65 inches. That goes to help form my judgment in the matter. At the same time it is not making a calculation; it is a matter of judgment in the way that you have placed it now.

Q—I suppose, of course, that there are a great many elements in this matter of evaporation to be considered—not only temperature, but also the wind?

A—Yes, sir.

1051 Q—Moisture and various things?

A—Yes, sir.

Q—And unless you had some observations and arrived at the result of those observations, you can hardly base anything like a calculation amounting to anything like a moral certainty?

A—Of course not. I say now, to work out this information about the matter, I do not say as a moral certainty it is five feet. I give you my judgment of the matter, and you take it for what it is worth.

Mr. McALLISTER—No further questions.

Mr. HAGGIN—In making or getting at a result from



1052 your observations, Mr. McAllister says that the wind, etc., would vary it. I understand that this observation that you gave of yours, the general result, is not intended to be a maximum result; taking into consideration the full effect of all those winds, etc., is it a medium quantity?

A—When you rule out the observations, I have given you my judgment about that. I don't know that I can make that any clearer than that. I think it is about there somewhere, there might be circumstances to make it more or less.

1053 Mr. HAGGIN—There was another question which counsel asked you on cross-examination which I would like to ask again. You said that, assuming that these other figures were correct, and that the data upon which you had based your estimates of the evaporation were correct—you said that the estimate which you made was based upon the supposition that the lakes contained 55,000 acres?

A—Yes, sir.

Q—That as the lakes recede evaporation would be less?

A—Yes, sir.

1054 Q—I suppose the counter-part of that is necessarily true. If the lakes were larger, the evaporation would be greater.

A—Yes, sir.

Mr. McALLISTER—Suppose, Colonel, the area of those lakes to be 55,000 acres, and by evaporation that area is reduced to the extent of one foot in depth—say the water is reduced one foot in depth—what effect would that have upon the amount of evaporation?

A—You mean the evaporation which succeeds this period?

Q—Yes, sir.

1055 A—It would be reduced. Other things being equal, and the area being less, the amount of evaporation succeeding that, for the next period of equal length, would be less because the area is less, in other respects as far as lowering the depth of the water is concerned, with what water remained the tendency would be to increase the evaporation in that respect, being more in shallow water than it is in deep?

Q—If the area is 55,000 acres, and the depth of the water is decreased one foot, how much of land would be exposed by that decrease in the depth of water?

A—That I cannot answer, sir. That depends on the slope of the lake, the slope of the ground.



1056 Mr. GARBER—The paper which I show you now contains the statement of the estimates upon which you based your calculation?

A—Yes, sir, the meteorological observations.

Q—This is the paper?

A—Yes, sir, that is the meteorological observations.

Mr. GARBER—Make some mark on it to identify it.

Mr. McALLISTER—What is the last exhibit?

Mr. GARBER—I don't want it as an exhibit. Make some mark to identify it. Write your name on the back of it.

1057 [The Reporter marks the paper with his name for identification.]

Mr. McALLISTER—Is that what is supposed to be taken by the Federal Officers, Colonel?

A—Yes, sir, at Visalia, sworn to by Federal Officers.

Mr. GARBER—I will read it to the Reporter if you would rather have it taken down.

Mr. McALLISTER—The Reporter has marked it. That is all that is necessary.

[Here insert.]

J. D. SCHUYLER,

1058 A witness for the defendants, being duly sworn, testifies:

I reside in Sacramento the greater portion of the year. I am a civil engineer. I am the chief assistant of the State Engineer.

Q—As the chief assistant to the State Engineer what are your duties?

A—Thus far they have been to make a general study of the problems of irrigation throughout the State; the different irrigation districts which have required work of various kinds and character.

1059 Q—Have you in that connection made any experiments or estimates upon the evaporation of Kern and Buena Vista Lakes?

A—Yes, sir; in 1879.

Q—What did you find the evaporation of those lakes to be?

A—During September the evaporation in the center of the lake, as shown by a pan near the center of the lake as close as we could place it, was about 53-100 of a foot. At the shore of the lake, or near the shore, another pan showed a loss, I think, of about 75-100 or



1060 74-100 of a foot. That was during the month of September. From the 30th of August to the 29th of September—about thirty days.

Q—Have you made any estimate of the annual evaporation, based upon actual experiments?

A—Yes, sir.

Q—What was the result of those estimates?

[Objected to by the plaintiffs on the ground that the question is inadmissible, immaterial and irrelevant, and also because it appears to be based upon his examination for the month of September, 1879, only.]

Objections overruled; plaintiffs except.

1061 The WITNESS. I estimated that there was probably a loss of about 6 feet.

Q—In making those estimates, did you rely solely upon the experiments which you had made in September, 1879?

A—No, sir; I had other data, either made by myself directly or under my direction. They were made in my official business.

Q—What other experiments were those you speak of?

1062 A—They were experiments made in two different places in the vicinity of Bakersfield, in 1879, and in the same year at a point about 12 or 15 miles below here on the river, where the observations were conducted, not only in 1879, but in 1880. They were experiments made in iron vessels exposed to the air, filled with water, the loss being measured by a graduated vessel of a given height, and the vessel being kept full. They were not made during the whole year. They were suspended during the winter; during the rainy months. The observations in 1880, at Barker's Ranch, were from the 10th of May, as I remember, the beginning of the rains last winter, about the 13th of December. The observations taken in the vicinity of Bakersfield and those at Barker's Ranch, were taken into consideration  
1063 in making my estimates which I have given of the evaporation of the lakes. They were a portion of the data upon which I formed my judgment.

Q—Were they sufficiently definite to authorize the conclusion that you arrived at?

A—I consider them such. The conditions existing on those lakes are especially favorable for large evaporation, with considerable loss of water. The lakes are shallow, the margins having a greater border of tule land about them. They are fully exposed to the wind, and they are in about the most arid part of the valley. In



1064 making those estimates of evaporation on the lakes, I have selected the minimum result. I think the minimum would be a little less than 5 feet. What the maximum would be, I could not pretend to say, at least 6 feet; perhaps more. Reasoning from general information, by analogy from the experiments made elsewhere, I should think it would be over 6 feet. I have not made any experiments other than those spoken of, with the exception of those in Los Angeles county. I have examined Kern River generally from where it emerges from the cañon to where it enters Buena Vista Lake. Its general course is southwest.

1065 Q—Where does the river empty?

A—It is now emptying into Buena Vista Slough. From there a portion of it runs into Buena Vista Lake, and another portion of it goes northward.

Q—Have you at any time been in the vicinity of Buena Vista Slough—in the vicinity of where this water empties?

A—Yes, sir; I was there once or twice in 1879; I have been there since; I was first there in February, 1879; I was then along the slough from Wible's headquarters up to the lake, southward, and along through the lakes. The water was not then flowing; it was in February. I have since been in the vicinity of the point in the slough where the river emptied into the slough; I have been to Cole's bridge and seen the water there; it was during the last month, April.

Q—During the past month, which way was the water flowing at the bridge?

A—The water was flowing under the bridge, southward.

Q—Under the bridge, was the flow of the water free?

A—There was an over-fall at the bridge; there was a great deal of fall. The water was not altogether unobstructed. I saw a levee at that bridge.

1067 Q—From your general knowledge of the river, and of the conditions there at that bridge and vicinity, what, in your opinion, would be the course of the river had that levee and bridge never been placed there at Cole's.

A—From what point do you speak of?

Q—Take the course of New River.

A—I should judge that the water would first seek Buena Vista Lake, and after filling the lake it would also fill up Kern Lake—back water. The general preference of the water seems to be to go in that



1068 direction; that seems to be the line of the greatest declivity from the river.

Q—Well, take the water that is represented on map I, the south channels, two channels running towards Cole's bridge, assuming that the bridge and levee had never been placed there, that it remained in a state of nature, as it was prior to the construction of the bridge and levee. What in your opinion would be the course of the river?

A—I should judge that the water would go southward.

Q—To the lakes?

1069 A—To the lakes, yes, sir; a portion of it would go northward.

Q—Now, placing the obstructions there, placing the levee and bridge at that point, assuming that the water came down through those south channels shown on this map I, what would be the result—what would be the result from the obstruction being placed there in your opinion?

A—The first result would be to cause a deposit of whatever material the water was carrying, or a portion of it; and the water not being able to go southward, it would all be forced northward towards Tulare Lake.  
1070 Kern River carries a very considerable amount of deposit, either in suspension or rolling along the bottom and if the velocity were checked at the bridge by any obstruction in the channel, the tendency would be to deposit the material it was carrying, and it would have the effect of building the slough up at that point, by diverting the waters northward, they would naturally having freed themselves from the materials they carried in suspension, they would have power to take up more material and scour out the bed further on its way north.

1071 Q—Now, Mr. Schuyler, assuming that in its natural condition, there was about the middle of Section 29, T. 30, S., R. 25, E. across Buena Vista Slough, a higher point, a higher elevation, than at any other point further south, in its natural condition, and you place an obstruction across the slough, south of where the waters empty into the slough from the river, a complete obstruction to the river, a levee, dam or whatever it might be, and cause the water to turn northward, you have stated that there would be a deposit formed, I understand you, in the neighborhood of that obstruction?

A—Necessarily.



1072 Q—What effect, if any, would it have upon this higher point in the middle of the slough, this point I designate as in Section 29, further north?

A—The obstruction would force the water to flow northward over this high point that you suppose to be in Section 29; the effect of the water flowing over that point would rather be to cut it down to some extent, depending altogether upon the fall below there.

1073 Q—I understand you, then, to say that in that condition of affairs, assuming that the waters came down this south branch and found an obstruction there which prevented them from running to the lakes, checked them completely and forced them northwards, and that there were a higher point in this place, that I designated in the middle of Sec. 29 on the slough, than the original point where the levee or obstruction was placed, the tendency would be to raise the bed at the levee at the obstruction and to cut it out and deepen it at the other point?

A—Yes, sir; that would be the natural tendency.

Q—Were you present when Colonel Mendell was testifying as to the experiments, or results of experiments and observations, upon evaporation? Did you hear him?

1074 A—I heard him; yes, sir. Some portions of the data upon which he bases his conclusions were made by me. The part that I have referred to as experiments made by me in the evaporation of the lake, and in fact all of the experiments that I have made, were regarded in the general calculations. I have furnished those experiments which I have made to Col. Mendell. According to my belief, they are correct. These were either made by myself, or under my direction. Those made under my direction I believe to be correct, though I could not swear positively to that. I have no reason to disbelieve them at all. They are accepted as official.

1075 Q—Were there any other data taken into consideration when you made these estimates? Were you present when these estimates were made?

A—Yes, sir; I made an estimate myself. I know exactly what data was used. I used the same data in making my estimates. Other data was used; other than the experiments that I speak of. The observations made at the U. S. Signal Service Station at Visalia as to the temperature and evaporation were used and compared with the observations taken here as to temperature. It was assumed that the temperature at this place



1076 being nearly equal to that of Visalia, the humidity would also be the same; and the humidity being the greatest governing element in the evaporation, that the evaporation must be scaled according to the humidity.

Mr. HOUGHTON. I move to strike out all of that evidence, as not responsive to the question.

Motion denied; plaintiffs except.

To Mr. HAGGIN. The other data that we had was the record from Visalia of the relative humidity.

Q—Do you know what years these records purported to represent from Visalia?

1077 A—They cover the years 1878, '79, '80, and a portion of 1881, and a portion of 1877.

Mr. McALLISTER. I suppose, your Honor, that we ought to object, or else we might be considered as waiving it, to any mention of surveys made by third parties, not the witness.

Mr. HAGGIN. We propose to prove it at a later period.

The COURT. That is what I understand. It may stand with that understanding.

Mr. McALLISTER. I only want it to appear that we object to hearsay evidence, so that we may not be considered as waiving it.

1078 The COURT. Yes, sir.

Mr. HAGGIN. Q—Have you traveled much between this point and Visalia? Do you know anything about Visalia?

A—Yes, sir; I have been there. I have not compared the difference in temperature of the two places, except for the purpose of calculating the evaporation of the lakes here. I have compared the records taken and kept here and those kept there.

Q—Do you know whether there is any similarity between this temperature and that of Visalia?

1079 A—I only know by these records I have compared; that is all I know.

Q—What records were they here that you compared?

A—They were records kept by the railroad agent at Sumner, and Mr. Crusoe at the Bellevue Ranch.

Cross-examination of

J. D. SCHUYLER.

Mr. HOUGHTON. Q—I understand you to say that certain experiments were made on Kern Lake in 1879?



1080 A—Yes, sir; I was not there at all in September, 1879. The experiments were made under my direction. I think the measurements were taken by L. L. Dixon. He is a man I had in my employ; and he lives here now. I have seen him since I have been here the last time.

Q—Did Mr. Dixon assist in all of these experiments you have referred to?

A—After I had placed the pans in position, and directed and shown him how to do it, he did so. He assisted in all of them. The experiments that were made at the Rio Bravo Ranch, were attended to by the parties living there. I did not make them.

1081 Q—Did not some one else except Mr. Dixon, make those experiments, or attend to that matter in September, 1879?

A—Not that I know of. All that I know about those experiments in September, is what Mr. Dixon reported to me, and that is true also as to the experiments made up the river. I made none of these experiments. All that I know is, what was reported to me by the parties up there. There was a record regularly kept in books that I furnished them. It was kept by John Barker, or a member of his family, and Mr. Dixon kept the record at the lake. I do not think I was in this county at all, during September, 1879. I don't recollect.

1082 Q—What are the other data that you used in making your calculation of the evaporation of 6 feet on the lakes, other than that furnished by Mr. Dixon and Mr. Barker?

A—The data used to obtain the scale of evaporation through the year was that of the mean humidity recorded in Visalia, at the U. S. Signal Service Station, the same as Colonel Mendell has produced here. The temperature and mean humidity at Visalia entered into it. That record was kept by the U. S. Signal Service. I had nothing to do with it.

1083 Q—I understand that some record was kept at Sumner, that entered into your calculation?

A—A record kept by the railroad agent there.

Q—Also the record kept by Mr. Crusoe at the Bellevue Ranch?

A—Yes, sir.

Q—You had nothing to do with keeping those?

A—No, sir. I was not there, I could not keep them. Mr. Crusoe is book keeper at the Bellevue Ranch for Haggin & Carr. I was first on Buena Vista Slough in February, 1879. I don't recollect the date. I think it



1084 was the 8th of February. It is possible that I was there the latter part of January. I know that I leveled a short distance from the water surface on the north-side of the head-gate at Cole's bridge—to the water surface on the other side, I am not sure whether that was before I made the trip over the lakes, or after. But those were the two occasions in 1879, that I visited the slough, once in January, and once in February. There was no water running there when I was there in January. There was water standing there at Cole's bridge. Kern River carries considerable solid material.

1085 Q—What effect, if any, has the taking of the water by canals, or diverting of the water on the channel lower down, on the river?

A—I should judge the effect would be to make it smaller. The water adapts itself to whatever condition it meets.

Q—What effect would it have as to filling them up?

A—Any diversion of the water has the effect to cause a deposit of material. I think the effect would be to fill up the bed of the streams.

Q—Has that been the effect on Kern River by reason of the diversion by canals?

1086 A—It has to some extent; yes, sir.

Q—Have the results since the beginning of the irrigation on the bed of the river been to slowly raise it, and diminish the capacity of the channels, and increase the liability to overflow?

A—Yes, sir. The result has been to fill up the beds in places.

Q—What places?

A—The greatest filling, I think, is about Pioneer Bridge.

Q—What has caused that?

1087 A—I should judge it to be the construction of the weir across the river, the obstruction thrown in the channel. There are other points, but none that I know of, nor in so marked a degree as that one. There is no other weir directly across the river.

Q—If the velocity of the water is checked, the effect in either case, isn't it, is to fill the channel?

A—That is the tendency; yes, sir. Checking the velocity causes a deposit of the material carried in suspension, or that rolls along the bottom. I was at the Rio Bravo Ranch, on Kern River, or at Barker's, about the 5th of January, 1879. I was there at various



1088 times after that; in 1879, 1880 and 1881. I was there twice in January, 1879, I think. I was there several times in February, 1879. I think I was there in the latter part of March. I was not there in April, 1879; nor in May. I was there in June, 1879, and in July, several times both months, I think.

Q—Did you ever make any estimate of the amount of water that was flowing down the river at that point during the first six or eight months of 1879?

A—Yes, sir.

Q—Do you remember the amount?

1089 To Mr. GARBER. That estimate was based partly upon experiments which I made myself. The gauging of the river was made at various times; and the estimates were made of the total flow for that period, were made from the results obtained by those various gaugings and the rod reading in the interval. I did not take all of the rod readings.

Q—You don't know then that those were all correct?

A—I believe them to be; I could not possibly know except from what other people told me. I was not there.

Mr. GARBER.—Then I object to the testimony.

1090 Mr. HOUGHTON. Q—Were those reports made by parties employed by you, in connection with your office?

A—Yes, sir; who furnished the reports to me. I took the reading and the gauges at the time I visited them.

Mr. HOUGHTON. Q—You say that you yourself made measurements there during those months?

A—Yes, sir.

Q—How much water was flowing by there at the time you made the measurement?

A—It varies with each measurement.

1091 Q—How much the first time, when you made the measurement in January?

A—I could not tell without refreshing my memory from the report I made. I think it was about 500 cubic feet per second. That was the first time I was there in January, 1879; it was in the early part of the month. I could not tell the exact date without referring to my notes. I have some notes with me, and can produce them.

#### AFTERNOON SESSION.

GEORGE H. MENDELL,

A witness for defendant, recalled, testified:

Mr. HAGGIN. Q—You stated that in making your cal-



1092 culation of the amount of evaporation you had used certain data. I understood you that the data from the office at Visalia and the data from the U. S. Land Office was contained in the paper?

A—The U. S. Signal Office, which is at Visalia.

Q—Was it contained in the paper?

A—Yes, sir.

[The paper referred to is the paper identified by the reporter marking his name on the back of it.]

Q—You have no further data from that office than what is in this paper?

A—No, sir.

1093 Q—Then you said there were certain other data?

A—Those are the observations of evaporation made at Kern Lake from the State Engineers' Department, and published in their report.

Q—Published in this printed report? Is this the one? (Showing printed report to witness.)

A (after examining)—That is the one I examined; that is the report.

Q—This is the report of the State Engineer to the Legislature of the State of California, the session of 1880, part 4?

1094 A—Yes, sir; part 4.

Q—Can you designate the particular page or part of that report that you referred to, that you used?

A—Pages 94 and 95. There are two series of pages in that book. It is pages 94 and 95, in the back end of the book; that is, appendix B, pages 94 and 95.

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TABLE SHOWING RESULTS OF EXPERIMENTS ON EVAPORATION IN KERN COUNTY.

No. of observations..	DATE—1879.	TIME OF OBSERVATION.	TEMPERATURE.			Time of exposure between observations, in hours.....	Observed loss between observations, in feet	Average loss per hour, in feet.....	Average loss per twenty-four hours, in feet	Average loss, in cubic feet, per second, per one thousand square feet .....	Average loss, in cubic feet, per second, per square mile .....
			Air .....	Water outside of pan.....	Water in pan..						
<i>Pan in Centre of Kern Lake.*</i>											
1	August 30th.....	10:40 A. M.....	89°	86°	90°	145	0.105	0.000727	0.01745	0.000202	5.63
2	September 5th.....	11:30 A. M.....	89°	81°	90°	145	0.096	0.000497	0.01192	0.000140	3.90
3	September 13th.....	12:30 P. M.....	86°	86°	118°	193	0.150	0.001042	0.02500	0.000290	8.08
4	September 19th.....	12:05 P. M.....	86°	80°	120°	144	0.180	0.000750	0.01800	0.000208	4.80
5	September 29th.....	12:10 P. M.....	78°	78°	88°	240					
<i>Pan near shore of Kern Lake.†</i>											
1	August 14th.....	10:40 A. M.....	88°	86°	90°	384	0.480	0.00125	0.03000	0.000347	9.67
2	August 30th.....	11:10 A. M.....	79°	83°	90°	144½	0.201	0.00139	0.03340	0.000386	9.31
3	September 5th.....	12:00 M.....	88°	90°	118°	193	0.195	0.00101	0.02420	0.000281	7.81
4	September 13th.....	12:00 M.....	81°	89°	120°	144	0.156	0.00108	0.02390	0.000300	8.36
5	September 19th.....	12:00 M.....	76°	80°	88°	240	0.189	0.00079	0.01900	0.000220	6.13
6	September 29th.....	12:00 M.....									

\* This pan was placed in the centre of Kern Lake, about two miles from shore, in five feet of water. On September 5th, 13th, and 29th the wind was north-west, and on the 19th southwest.  
† This pan was placed in about two feet of water on the northeast side of lake. A gauge at side of pan indicated a loss of 0.4 from July 16th to July 28th; August 14th, 0.3 more; August 30th, 0.3 more; September 29th, 0.43 more; in all, from July 10th to September 29th 1.43. From August 30th to September 29th—thirty days—pan in centre of lake showed a loss of 0.531 foot; the pan on the shore of the lake, 0.741 foot, and the gauge 0.43, indicating a slight supply to the lake by percolation.



1100 Q—Assuming, then, the correctness of this Visalia data, the record of the office at Visalia as represented in this paper marked by Mr. Gearhart, and assuming the correctness of these data given in the State Engineer's report at the pages you refer to, you are satisfied that this was sufficient for you to arrive at the conclusion which you announce?

A—Yes, sir.

Q—And, from those data, there was at least that amount of evaporation from these lakes?

A—Yes, sir; I judge so.

1101 Cross-Examination of

GEORGE H. MENDELL.

Mr. McALLISTER. Q—That assumes that the statistics, so far as Visalia were concerned, are precisely similar to the statistics at this point?

A—Yes, sir.

Q—Did you take into your calculations the records kept at Sumner and the records kept by Crusoe at the Belle View ranch?

A—No, sir; I was not aware of their existence,

1102 Q—You had nothing to do with those matters?

A—No, sir.

Re-direct Examination of

GEORGE H. MENDELL.

Mr. HAGGIN. Q—You are satisfied, as I understand from your statement, that there will be that amount of evaporation; that the record of humidity, as shown from the record at Visalia, showed no greater amount of evaporation there than it would be here, from your knowledge of the two places?

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A—Yes, sir; my judgment is, with regard to that—of course, the best evidence would be the observations here, if they had been made here. They were not made here. And then the next question is, how can we reach this in some reasonable, judicious way? These are the observations at Visalia. I consider those to be applicable here, for the reason that they are in the same climatic conditions in the same valley. They are not far apart, and, as far as we could judge, I should expect, from general appearances, that this neighborhood here would be dryer



1104 than at Visalia, because it is further from the sea. Then I am informed, and found it to be the case, that this country here is visited frequently by very dry winds, blowing from the desert, which are calculated to make the air very dry, reducing its humidity. So I think, in my judgment, that it is perfectly safe, and that it is the moderate side of the case to take those observations there and apply them here.

1105 Q—What I want to get at is this, that you are satisfied in your own mind, from your experience, being in both places, that the estimate made of the evaporation in this place, based on the record of the humidity at Visalia, will not give a result exceeding the actual amount of the evaporation in this place?

A—Yes, sir; that is my judgment.

Cross-Examination of

J. D. SCHUYLER.

(Continued.)

1106 The WITNESS—The amount of water that was running in Kern River at the first time that I was at the mouth of the canyon, which was on the 17th January, 1879, was 389 cubic feet per second. I made that estimate myself. I do not find any note of my second gauging. I don't think I brought them away. It was the following month that I think I was there, in February. I don't remember, as a fact, how much water was flowing there at the time when I was there at that point in the latter part of February. I think more was flowing than in January, possibly one-third more. I think I was there once or twice in February, but only once for gauging purposes. I was there in March, but I did not measure the water. I was not there in April or May, but I was there in June. I made measurements then. I don't know what the date was. I cannot fix the date from the notes I have with me. I thought I had all my notes with me bearing upon that point, but I don't find them all. I gathered them up hastily when I came down here. I was there more than once in January, but I made but one gauging. I was there once before the 17th, about the 4th or 5th.

1107 Q—Was there more water flowing at that time than there was on the 17th?

A—As I had not any means to gauge it at that time, I cannot say.



1108 Q—Are you sure it was the 17th you were there?

A—It was either the 16th or 17th. I think I was there both days. The measurements that I took run through two days I believe. We could not finish the measurement all in one day. There was about the same amount of water running on the 16th that there was on the 17th. I have no recollection as to whether there was more on the 4th than there was on the 16th or 17th or not. John Barker kept the rod report. The report which I produce is not the original. I think that is a copy made by myself or one of my clerks; made by one of my assistants. It is not in my handwriting.

1109 Q—How are Kern and Buena Vista Lakes connected?

A—They are connected by a very crooked slough. I have been through that slough.

Re-Direct Examination of

J. D. SCHUYLER.

1110 Mr. HAGGIN. Q—In regard to the water being taken out and put in the various ditches, as having some tendency to cause the bed of the river to rise. Suppose the water is taken out in an particular ditch, take for instance the Kern River Irrigating Canal Co's., how much would the water taken out there affect the bed of the river?

A—It would depend very much on the quantity of water taken from the river. As the water was formerly diverted from Kern River, it was by a weir thrown entirely across the channel of the stream, and by that means of diversion the effect would be to fill up the channel above the waer and beneath, especially below.

Q—Was that what you had in view when you said it would have some tendency to fill the channel?

A—Not altogether.

1111 Q—What did you have in your mind when you made that statement?

A—I had in my mind the well-known principle in hydraulics, that the separation or division of water into a number of parts would always have a tendency to deposit a material held in suspension. The action of falling water is always to cause a deposit of material; a deposit of material held in suspension. If the river falls itself, it will produce practically the same result, if it falls suddenly. At times the river rises gradually and falls gradually; at other times it rises suddenly and falls suddenly. A succession of very hot days would cause the water to



1112 rise rapidly, and if followed by cold weather the water would fall. I cannot recall any very marked fluctuations. By referring to the records, I could, perhaps, tell something about it.

Q—Have you ever noticed any changes in the river, as to its rise or fall, independent of canals, that would operate to cause a submerging of these waters, these foreign matters or whatever it may be termed?

A—I have observed a deposit of material in the bed of the channel, and I attribute it to the well known laws of hydraulics.

1113 Q—Have you observed any deposit in the channel attributable to any other cause than the canals and which the canals would have no effect on?

A—I think I have, sir.

Q—Any change of deposit in the river above the heads of the canals at all?

A—Yes, sir: there is a deposit of sand above the heads of all the canals, which is constantly going on.

Q—You say above the heads of the canals. Do these canals have any effect at all on the amount of deposit at the points which you speak of, above the heads of the canals? Would that deposit go on the same whether

1114 there were any canals or not above the heads of the canals?

A—I think so.

Q—Have you noticed any islands or sand-bars, or accumulation of deposit, in any portion of the river at any point above the head of the Beardsley Canal?

1115 A—I have noticed deposits of that sort, of that character. I have noticed that islands exist up there. I have also noticed the existence of islands below the head of the Beardsley. They are of a similar formation; precisely the same, as near as I can judge of them. If there were no canals in existence at all, I think those islands—these deposits in the river—would occur.

Q—You speak about the bed of the river being raised by the lowering of the water, from whatever cause it may be—whether by being taken out by the canals, or whether by the natural fall of the river. Do you, in your opinion and from your observations and experience, think that the canals have any tendency, or tend to alter the channel of the stream, or maintain it in its present position? What is your opinion on that subject?

A—The diversion of the water by the canals controls



1116 it. The control of the water in one channel tends to maintain it in that channel.

Q—Do you think that the canals operate and tend to control the water, and to keep the water within the natural channel of the river?

A—The acts of the irrigators, that would also maintain the canals. It is their interest, after having erected their works, to keep the water so that it will enter their head-works.

1117 Q—Isn't that the natural tendency in placing those head works there, to fortify the channel of the river, and to maintain it in its position, as they find it, when these works are placed there?

A—I judge so.

Q—That is your opinion?

A—The headworks, and the works connected with them, and the levees that are along with them.

1118 Q—Assuming that no canals had been constructed upon this river, and no headgates had been placed there, do you, from your experience and observations of the channel of this river, and the formation of the river, think that the channel of the river would have remained as permanent as it has done since the construction of the canals?

A—There is every reason to believe it would not. It is not a permanent water-way. There are evidences from the delta of the river to show that it has occupied various channels; either that the whole river has occupied several channels at one time, or one at a time.

Mr. HAGGIN—It has been stated here in this case by Mr. Taylor and Mr. James, that Mr. Schuyler accompanied them on a certain trip that they made through the body of swamp land, which has been before described and referred to in these proceedings. But I ask Mr. Schuyler first if he is the gentleman referred to?

1119 The WITNESS—I presume I was, I was with Mr. Taylor on that trip.

Mr. HAGGIN—Mr. Schuyler has requested me not to ask any questions, or examine him upon that trip at all, as he is an officer of the State, and does not desire to be a witness in this case beyond such general and scientific matters as have been brought to his notice, previous to his visit here. I would of course, like to ask Mr. Schuyler what he saw on this trip, if counsel on the other side have no objections. But I do not desire to ask Mr. Schuyler anything that he objects to himself. I under-



1120 stand that his only objection is that the other side might object to it themselves, that as to what he did actually see he has no objection to disclosing that himself. All that I make these remarks for now, is to preclude any idea that counsel might have, or argument they might hereafter make, that there is a presumption against us from our not questioning him or examining him upon this trip about the swamp land. And it is in evidence that he was going with these gentlemen that he mentioned. If the opposite counsel have no objection, I  
 1121 would like to ask the question, provided Mr. Schuyler is willing to testify.

Q—I understood you to state that that was your sole objection?

A—Yes, sir. I did not wish to appear to have a bias in this case. It would not be becoming to a man in my position. It is purely at my request that you have made this statement.

Q—And have abstained from asking any questions about it?

A—Yes, sir. I asked the privilege of going along on that trip to see the country; but I did not expect to testify as to what I saw there.

1122 Mr. HAGGIN—(Continuing.) I ask counsel for plaintiffs whether they have any objection to my examining Mr. Schuyler as to the trip?

Mr. HOUGHTON—I don't suppose any consequences can arise from it one way or the other.

Mr. MCALLISTER—We shall not claim anything from your not examining him on that trip. We shall not make any claim based upon your not examining Mr. Schuyler as to that trip.

Mr. HAGGIN—That is all that I desire.

#### Re-Cross Examination of

1123

J. D. SCHUYLER.

Q—You say that the diversion of a portion of the waters of Kern River by canals, would have the tendency rather to keep the channel open, than to close it up?

A—Yes, sir, I think it would.

Q—Do you think that the making of wing-dams in the river, making an obstruction in the channel, would have a tendency to keep the channel of the river open rather than to close it?



1124 A—All of those acts would have a tendency to control the water and to keep it in a channel.

Q—Don't you think that if the volume of a stream running through the valley, being constantly diminished by irrigating canals, and its flow choked up by wing-dams to some extent, the transporting power of the water would in a measure cease, and the effect would be to drop the sand in the bed all along the valley?

A—I think so; but that action is going on at all times anyway.

Q—The more water you take out, and the less velocity the water has, the more sand drops?

1125 A—The stream being largely taken up and adopted as a channel for carrying water to the canals, or to get water from them, the acts of the irrigators would have a tendency to keep the water in the channel. It is for their interest to do so; and, keeping the water in the channel, they also divert the water.

Q—But what would be the effect below the point where it was taken out? What effect would it have there?

1126 A—The volume of the stream being diminished, it would not be so likely to cut a new channel as it would otherwise. The effect of lowering the large body of a stream that runs in a channel, or diminishing its volume, is to clear out the low water channel and to adapt it to that flow of water. The increase of the quantity of water gives it an increased weight, and enables it to go faster.

Q—Isn't it the natural result, since the beginning of irrigation here, for the bed of the river to be slowly rising and diminishing its capacity, and generally increasing the liability to overflow?

A—I think so.

1127 Q—Is it not a fact that, prior to the commencement of irrigation, the current of the stream was unchoked and flowed unchecked; that this sand or deposit flowed unchecked into the river and into the lakes, and which now drop into the bed of the stream?

A—I think there is more deposit in the channel of the river and above the canals in the river now than formerly.

Q—Than there would have been if the river had been unobstructed, and the water allowed to run down?

A—That is my opinion.



1128 Re-direct Examination of

J. D. SCHUYLER.

Mr. HAGGIN. Q—I understood you, speaking of the general course of this whole river, that it was more apt in a given time to have changed its course before the construction of the canals than it has been after the construction of the canals, taking the whole together?

A—Yes, sir.

Q—That the canals have tended to maintain it in its position?

1129 A—Necessarily.

N. M. BROWN,

A witness for the defendant, being duly sworn, testified:

To Mr. FLOURNOY—I reside at Mr. Vining Barker's, in Kern county. I first came to Kern county in 1867. I struck here about two hundred yards from the Town Hall in Bakersfield.

Q—Where did you go from there?

1130 A—I don't know the name of the township. It is in Section 18, down near Canfield, adjoining Mr. Watson's place.

Q—That was in what time?

A—1870. I have forgotten the time of the year it was. I went down there to take up a quarter section on 18; to pre-empt it.

Q—Can you point the place out on the map?

A—I believe I did once.

Q—That is near enough. It is at Watson's place—next to Watson's place?

A—Yes, sir; northeast of Watson's.

1131 Q—What did you want a quarter section for? Did you go down there to farm?

A—My father took it up. He farmed very little down there.

Q—Did he use any water?

A—Yes, sir; from Buena Vista Slough.

Q—In what year?

A—1870 or 1871; a part of 1871.

Q—Do you mean the old Buena Vista Slough? You don't mean the Buena Vista Ditch, now?

A—No; the old slough. That slough was used at that time as a canal for irrigation. I believe they called it Buena Vista Slough then.



1132 Q—Who else used the water, to your knowledge, along there?

A—Mr. Barnes and the Harris brothers and a man named Keith. I don't remember the names of any others. There were some others there. Those persons I have named all used water from Buena Vista Slough for irrigation in 1870 and 1871.

Q—Do you know anything about the construction of Buena Vista Canal?

A—Well, not much. I worked on it a little while. I can't tell you at what time. You can find out from Mr. Barker.

1133 Q—What body of water did that slough carry while you were using it there?

A—It ran pretty nearly full the most of the time.

Q—A large body of water?

A—Yes, sir; a pretty good size, I should think.

Q—Where did the water discharge itself?

A—It was turned loose on the plains toward the lake. I don't know whether it ran clear to it or not. It would run in between the lakes at the mouth of Old River.

Q—Between what lakes?

1134 A—Kern and Buena Vista.

Q—You spoke of the Old River. Do you know anything about Old River?

A—Little.

Q—You spoke of living at Mr. Barker's place. How long did you live there?

A—I went there only last year, and part of this on his place.

Q—How long have you known Old River?

A—Well, I have seen it off and on since 1870, at different times.

1135 Q—What volume of water did Old River carry in 1870?

A—It ran pretty full most of the time; tolerably full most of the time.

Q—Did you see the lakes in 1870?

A—I have been around them.

Q—You say it was full. Did you cross Old River in 1870?

A—Yes, sir; I crossed Old River.

Q—Where at?

A—I crossed it in a good many places.

Q—A good many places in 1870?



1136 A—The Charlton Ford and other places. I cannot tell you where.

Q—How was the water when you crossed it?

A—Generally pretty well up.

Q—Swimming?

A—No, sir.

Q—How was it in 1871?

A—I don't think it would be quite so much. I think it was lower. I don't remember whether I crossed it in 1872 or not. I crossed it in 1873; but I don't re-

1137 member how the water was there. In 1874, it was pretty well up—high.

Q—How was the water?

A—It was pretty deep.

Q—How many years have you known Old River? Ever since 1870 or 1871?

A—Yes, sir; most of the time.

Q—I will ask you what was the condition of it up to 1877, as to the volume of water it carried generally, when the Kern River was full?

A—It generally carried a pretty good head, until the Stine Ditch was taken out of it there, and a head-gate put in.

1138 Q—A pretty good head of water?

A—Yes, sir.

Q—And ran generally during the year?

A—It did most of the time; sometimes there would not be so much.

Q—What is your acquaintance with Kern Lake? When did you first get acquainted with the lake?

A—Kern Lake was pretty high in 1870. That was about the first time I was there.

Q—What points were you at on Kern Lake in 1870?

1139 A—Just below Southers' milk ranch.

Q—How far was the water from Stockton's at that time when you saw it?

A—I have been at both places; from Stockton's it is about a half mile, or something like that.

Q—Half a mile of what?

A—From Mr. Stockton's house.

Q—How was it in 1874?

A—About half way from that to the house. It was pretty nearly half way from that to the house, between a quarter and a half a mile. I didn't see it in 1876.

Q—Did you see it in 1871, '2 or '3?



1140 A—I saw it some in 1873. It was tolerably high. I don't remember exactly how far it was from Stockton's house. I don't think it was quite so near as in 1874. I think it was as near as it was in 1870.

Q—Do you know where the lone tree is?

A—Yes sir; it is on the east end of Kern Lake. I have been there when the water was full in the lake, and I have seen the water close to that tree, I cannot say exactly how far from it. I have seen it along 50 or 60 yards, I think, something like that.

Q—Do you know where the boat house is?

1141 A—Yes, sir; I have seen the water all up about around the house.

Q—When was that?

A—In 1874. I have never been there to notice it since. I was not there in 1870.

Q—Were you along with Mr. Fillebrown, a few days ago, in surveying that land?

A—Yes, sir; I pointed out to him where I had seen the water in 1874, at different points.

Q—Such as you have stated here?

A—Yes, sir, at two of those points.

1142 Q—Have you ever been down at Buena Vista Slough?

A—Yes, sir, I have been there some. I know where Cole's Crossing is; I have been there. I was there first in the Winter time, or the early part of the Spring of 1870.

Q—Was there any water flowing there at that time?

A—I cannot tell whether there was any flowing or not; I think it was standing.

Q—Was there much water?

A—Yes, sir; there was water all around the country there.

1143 Q—You didn't observe any current at that time?

A—No, sir.

Q—You don't know in which direction the water was flowing?

A—No, sir, I don't. I never was on the swamp there to the north of Wible's Camp.

Cross-Examination of

N. M. BROWN.

By Mr. HOUGHTON. Q—How much land were you cultivating on Buena Vista Slough in 1870 and 1871?



1144 A—Very little. I cultivated a little; I don't know how much exactly I did have, it was not much; it was not 50 acres; I don't think it was more than ten.

Q—Who else did you say was cultivating land there?

A—A man named Keith.

Q—How much was he cultivating?

A—I don't know. The Harris boys, they cultivated some.

Q—How much did Keith cultivate do you think?

1145 A—I don't know. I can't tell you anything about how much he had. I know he cultivated some; but I don't know how much any of them did. I don't know how much the Harris brothers cultivated.

Q—You don't know whether they cultivated more than you did?

A—I don't know how much they had. They had some, and used a little water. I passed along by their place and saw they had some in; but I don't know how much.

Q—How much water did you use there in 1871?

A—We used considerable, scattering it around over the grass plots. I don't know how much Mr. Keith used.

1146 Q—Was any one else there cultivating land in 1871?

A—Mr. Keith and the Harris brothers, and Mr. Barnes and my father; that is all I remember; I don't know how much Mr. Barnes used.

Q—Do you know how much they used in 1872 or 1873?

A—No, sir.

Q—Were you there in 1874?

1147 A—I was along there, but I didn't stop there. I was not living there; I lived there from 1870 to 1871, sometime.

Q—Do the waters that run into Old River run into Kern Lake, or into the slough between the lakes?

A—Between the lakes.

Q—Where did Mr. Keith reside down there?

A—I believe he was on the place that Mr. Watson has now; I don't know what section that is.

Q—What Watson is that?

A—James Watson.

G. K. OBER,

A witness for the defendant, being duly sworn, testified:



1148 To Mr. FLOURNOY—I reside on Secaion 14, Township 31 South, Range 27 East. I have lived in this county since 1873.

Q—In what part of the county did you settle in 1873?

A—The place I have still; the same place I am now living on.

Q—Can you point that out on the map?

A—Yes, sir; (pointing to map I;) That is it, on Sec. 14, Tp. 31, R. 27.

Q—Have you any acquaintance with Buena Vista Slough?

1149 A—I have been on it a few times, or across it rather. I first saw it in October, 1873. I believe I crossed it at what was called the old Tracy crossing.

Q—What was the condition of the water at that time?

A—There was some water running. I saw it again in February, 1874, a few miles further south. I can't tell exactly at what place.

Q—Do you know anything about where Cole's bridge is?

1150 A—Yes, sir, I have been there. I was first there in December, 1875, putting in a dam across the slough. I was in the employ of W. H. Souther.

Q—What did you put a dam across the slough for?

A—To keep the water from going into Buena Vista Lake from Buena Vista Slough.

Q—How was it running when you went there?

A—It was running south into the lakes.

Q—How did you put the dam in?

A—By getting turf and throwing it off the bridge into the water. There was a bridge there then.

Q—Was there any levee connecting the bridge with the high land at that time?

1151 A—There was a levee running something over a mile nearly east—in an easterly direction from the bridge. There were five men at work on this dam at the time I was there.

Q—Was the dam easily constructed?

A—No, sir.

Q—How long were you at it?

A—In the neighborhood of one month.

Q—How high did you carry it above the mark of the water when you first constructed it—about?

A—I think between six and seven feet.



1152 Q—Did you succeed in perfecting a dam and keeping the water out?

A—We stopped the water at that time.

Q—What was the effect on the north side when you stopped the water?

A—The water rose about three feet from its former level.

Q—How long did it take to make that raise?

A—It did it in a very few moments; that is, in stopping it.

1153 Q—It was so very soon after you got it completely stopped?

A—Yes, sir.

Q—Do you mean it raised that much above the water on the south side?

A—Yes, sir.

Q—When did you next see the slough at that crossing?

A—Early in March, '76.

Q—Were you down there again at that time?

A—Yes, sir; I went down there to repair the dam, because it was liable to wash out and was caving.

Q—Had it washed out?

1154 A—It did not.

Q—It was caving?

A—Yes, sir.

Q—Did you repair it? Was it broken in any place at that time?

A—No, sir; that was early in March, 1876. We repaired it at that time by hauling turf and dirt and fixing the dam. We didn't raise it any nor strengthen it.

Q—How high had the water raised on it at that time?

1155 A—I think about two feet from the previous level, making it about five feet. I didn't see it at any time after that during 1876. I have been back there once. That was in September, 1879.

Q—Was that same dam there?

A—I think not. I don't know of my own knowledge about its breaking.

Cross-Examination of

G. K. OBER.

Mr. HOUGHTON. Q—You say, when you crossed at Tracy's crossing in 1873, the water was running close up. Which way was it running?



1156 A—It was running north; I have learned since, from the direction of the country.

PETER O'HARA,

A witness for the defendant, being duly sworn, testified :

To Mr. GARBER—I reside on the south half of the southeast quarter of Section 18, Township 30, Range 27. I have lived there six years. I first came to this country in '69. I have lived on this same place ever since. When I first came here I stopped a short time on Section 17, the same township and range. I have been cultivating land in that vicinity, and have used water for irrigation. I first began cultivating land there in 1870. I came there in the latter part of 1869. When I first commenced cultivating I irrigated. I got water to irrigate from the Kern River.

Q—What portion of Kern River?

A—It is a mile north of Section 4, in the same township and range; a little over a mile or about a mile from the township line.

Q—How did you get the water to your land from Kern River?

1158 A—By cutting through to the river—through an old slough there, called the Buena Vista Slough. It was through that slough that I got the water. I turned the water into that slough from the river and began using it in 1870. We have continued using the water through that slough from that time to this. The slough is called the Buena Vista Slough. When I first went there the water didn't flow naturally through that slough.

Q—Did any one else besides yourself use water from that slough at that time?

1159 A—Yes, sir; on the ranch of Watson, I believe, they used water, and the two Harrises and Mr. Barnes, John Carrolton, John Gordon and Frank de la Trace, an Italian or Frenchman, and an old man, White; I don't know his Christian name.

Q—Whereabouts did these various parties that you have mentioned use the water in those days?

A—They used it on the course of the slough.

Q—Do you know the Buena Vista Canal?

A—I do, sir.

Q—Whereabouts, with reference to the Buena Vista Canal, is that slough?



1160 A—It is running parallel with it; it is a portion of it virtually.

Q—Did any of these other parties whom you have mentioned turn any water into that slough?

A—Yes, sir; they assisted me in doing it, or I assisted them; we did it jointly.

Q—Did anybody else use water from the slough that you know of?

1161 A—I believe a man named Taylor, in company with Mr. Gordon, that used it south of Mr. Canfield's place, and, I believe, Jacob Carlock or George Carlock, one or the other of them, used water, and I didn't know but both.

Q—Is there a head-gate to that slough, do you know?

A—There is now. That gate was put there about June, 1870. I assisted in putting it there. It was done by the Company. We organized a company called the Buena Vista Canal and Ditch Company. It was not an incorporated company at that time. All of these people I have mentioned were the company, and they put this gate there and turned the water into the slough; and all of them used the water below. That was in 1870.

1162 We have continued the use of the water through the slough every year since.

Q—Do you still use the water through the slough as it existed in those days?

A—No, sir; it has been improved, of course; been widened and the banks thrown up at the upper end, and it was then discharged into the new canal that has been built since.

Q—A new canal has been built since. Who built that new canal?

1163 A—The Buena Vista Canal or Ditch Company; that is, a corporation known as the Buena Vista Canal Company. That head-gate was put up in, in 1870.

Q—Is that head-gate still there?

A—The remnants, the most of it, is there—the same frame is there, that is, so far as I know. It was there the last time I was at the head-gate. I have not been there, I don't think, for a year. A year ago it was the same head-gate as in 1870.

Q—No larger?

A—No, sir; not to my knowledge. I could not see any change.

Q—How long before this canal that you speak of was



1164 constructed; do you know what year that was constructed apart from the slough?

A—I conceive it was in the winter of 1874 and in the spring of 1875. I have not any memorandum of it, but that is about my recollection.

Q—After the construction of that canal did water continue to run down the sloughs beyond where the canal was constructed, or was it run into the canal?

A—It was run into the canal.

Q—Was there any water run in the slough after that point?

1165 A—Only from the waste-gate, down on Section 17; there was a waste-gate established there.

Q—Do you know where this portion of the canal that you speak of as distinct from the slough began? In what section?

A—It begins on Section 4, at the township line; that is where the canal began.

Q—Then is there any part of the canal constructed above Section 4, higher up the slough up to the river?

A—The canal has not been extended up, the slough is simply cleared, or dug out and banked up.

Q—Do you still use the water from the river?

1166 A—Yes, sir; from the channel of the canal. The water has been used either through the slough or the channel of the canal ever since I first knew it in 1870, every year.

Q—When you used the old slough before the canal was constructed, you had to turn in, I understand, or did turn in, a certain amount of water from the river to get it to the place where you used it?

A—Yes, sir.

Q—Did you ever see the water turned in from the river in those days?

A—Yes, sir; I turned it in.

1167 Q—How much water did you have to turn in there then, to render it available at the place where you used it in those days, when you used the slough?

A—Before we got the head-gate there, we had to take it as it came. It was owing to a rise in the river. Where the head-gate is now, was the widest channel. And then we cut another little channel further in, just above there; I think it might be 300 yards. It runs through a willow thicket that is there.

Q—What year did you cut that little channel?

A—That was early in the Spring of 1870, before we



1168 constructed the head-gate. I assisted in the construction of that head-gate. It was constructed in about June, 1870.

Q—Do you know how much water you would have to turn in, in those days when you used the old slough, to render the water available at the place where you used it?

A—I know something about it after the head-gate was constructed.

1169 Q—How much water would you turn in then after June, 1870, as long as you used the old slough as the canal or channel?

A—Well, I guess we recorded sixty cubic feet of water. The intention was to construct it, so as to receive it two feet deep and thirty feet wide. I think we turned in about that amount. We had a desire to do so at the time, and I think we came very near doing it. After we turned in the water from the old slough, it followed the course of the slough.

Q—Had you done anything in the slough?

A—In certain places we did, we threw up levees in the low places and tried to confine it to the channel.

1170 Q—Wouldn't the water keep within the channel itself?

A—It overflowed a great amount of country in those low places—overflowed a good amount of country, and we were compelled in some places to throw up levees.

Q—Then when you turned water in it to use it, it would first overflow a portion of the country?

A—Yes, sir.

Q—Did that control the overflow of portions of the country, up to the time of the construction of the canal on April 4th or 5th?

A—It did.

1171 Q—Was there much of that water used in that way at the time of the construction of the canal?

A—A good deal.

Q—After this canal was constructed, did you run water down through the canal?

A—Yes, sir.

Q—Did it save, or prevent any of that wastage at all?

A—Yes, sir.

Q—Then, after the construction of the canal, in order to get the water to the places where you used it to render it available, how much water would you have to



1172 turn in the canal or into the head-gate, compared to what you had previously turned in when you used the old slough?

A—I think it was very nearly equal. We didn't have to turn in any more, I don't think.

Q—Have you known of more water being turned in since the new canal was constructed, than in the old days when you used this slough?

A—Well, I really can't say with regard to that. Sometimes I thought there was a little more turned in—sometimes when the canal was running very full; I  
1173 thought in some places where it was level. It appeared so sometimes, but I think on the average there is very little difference in the amount of water that is turned in.

Q—Do you know anything about Old River?

A—I do. I first knew Old River in 1869; in December. There was water in it then.

Q—How much water was there then?

A—I can't tell you the number of feet or inches. There was a good sized stream there.

Q—What part or point on the river was this that you speak of?

1174 A—The original crossing on Old River was at Stine's crossing, where Stine's ranch was. That was the point I first knew it at. That is where I first crossed it. There was no difficulty in crossing it at that time. I have known it from that time up to 1876.

Q—What was the general condition of that river during the spring of the year, during those times, from 1869 to 1876?

A—I believe in 1876 was the year that the head-gate was put in at the head of Old River there. I don't know, but I think it was. In the winter time the  
1175 stream would be pretty high; that is, in the high water time. Of course, in the fall of the year it would be low.

Q—Did the amount of the water in Old River in any ways depend on the amount of water in the main channel of Kern River?

A—Yes sir.

Q—Up above the point where Old River diverges, above the mouth or head of Old River.

A—Yes, sir.

Q—How was Old River in the spring of 1871?

A—There has always been water in it. I can't tell about the quantity. I don't think there was quite so



1176 much in 1871. There was always water in it up to 1876.

Q—How has it been since 1876?

A—I say 1876. I am only saying that from my recollection, but I think that is the year. I don't know exactly.

Q—How do you fix that?

A—Because I think that was the time. That head-gate was put in at the head there, and that shut the water off from Old River.

1177 Q—Then it makes no difference as to the year, but at the time the head-gate was put in at the head of Old River?

A—Yes, sir. I have never been up there to examine the head-gate, and I don't know the nature of it, but after the gate was there it shut the water off, and it does not come down.

Q—Do you know there was a perceptible difference from that time on?

A—I know there was.

Q—Prior to that, in the spring of the year, did the river seem to run full or not?

1178 A—Sometimes when we had a wet winter it ran full, and other times it was not.

Q—Did you ever cross on the bridge near the Anderson place, the bridge across Old River, or any bridge across Old River?

A—I have crossed it in various places.

Q—Prior to 1876, did you ever cross it?

A—The main channel?

Q—Old River?

A—No, sir; I never crossed it up there but once or twice since I have been on Kern Island.

1179 Q—I am speaking of crossing on the bridge of Old River?

A—Yes, sir; I have crossed that ever since it has been constructed.

Q—There is only one bridge on the river?

A—That is all, on Old River. I thought you referred to the main river. There is only one bridge on Old River that I know of.

Q—Have you at any time in the spring of the year seen the water in the Old River when you were on that bridge. In crossing the bridge, did you ever notice the water of Old River in the spring of the year?



1180 A—Yes, sir; I noticed it all the time when I crossed, when there was any water there.

Q—Prior to 1876, or prior to the construction of the head-gate at the head of Old River, how high have you seen the water on that bridge?

A—I never saw it but once that it was what I considered high. I don't know whether it was in 1873 or 1874, but it was thereabouts. I recollect it was pretty high there one year at that point in the river, because I said I thought the bridge would wash away.

Q—How high did it come up on the bridge then?

1181 A—I presume it was midway. I don't know the height of it. It was pretty high, almost bank high. I saw it one time completely up—bank high—so high that I thought it would wash out.

Q—When the water was in Old River in those former days, what sort of a current did it have?

A—The current was generally pretty swift.

Q—Have you ever at any time, in crossing Old River at any point, met with any difficulties in crossing it?

1182 A—I did once. I believe it was in the Winter of 1870. That was down in Section 19 in the same township and range that I lived in. I crossed there. It was a low crossing. I don't remember the name of the crossing. It crosses over about Chubb's. It was a road running to the place that Mr. Watson owned. The water was very high there at that time. It was flowing even with the banks.

Q—Do you know where the Charlton Crossing is?

A—That is the place. It is below where the Charlton Crossing is now; down right through the ranch that Charlton formerly owned. Mr. Watson owns it now.

Q—Was that the same place next to Charlton there?

A—That is what it was termed at that time, I believe. It was on that claim.

1183 Q—You spoke of claiming 30 feet of water by a certain depth; how did you claim that in the Buena Vista Canal?

A—By appropriation.

Q—What did you do?

A—Put up notices.

Q—Did you ever see that notice?

A—Yes, sir.

Q—Where did you put up the notice?

A—East of the head-gate.



1184 Q—Did you have anything to do with the putting up of that notice?

A—Nothing more than the understanding and directions at the meeting. I didn't see the notice put up. I saw it when it was put up. I don't know what has become of that notice. It was put up in the river from the head-gate, I suppose 25 steps on the bank of the river; perhaps not quite so far on the south or the southeast bank.

1185 Q—Do you know whether that notice was recorded or not?

A—I don't know that that one was recorded. There was an exact copy of it recorded, as near as I can judge from the wording of it.

Q—When was that notice put up?

A—In the Spring of 1870. I think it was about February or March. It might have been March. I think we organized about that time. I don't know what has become of that notice.

Q—Do you remember the contents of that notice?

A—I know what it purported to be. I didn't commit it to memory.

Q—Would you know the notice if you saw it again?

1186 A—I don't know that I can identify every word. I would know the substance of it, I think.

Q—Is this a copy of it? (Showing Volume 1 of Miscellaneous Records.) Do you remember the substance of that notice?

A—I had it recorded myself; I took it there and had it recorded.

Mr. HOUGHTON. Q—Do you remember the substance of the notice that was posted?

A—I do remember the substance. I could not relate it, because I have not kept it to memory.

Q—Do you know whose names were signed to it?

1187 A—I don't remember who were the trustees. I suppose it was signed by them. John Newton was Secretary of the company at that time.

Q—Do you know whose names are signed to it—how many names are signed to that notice, if any?

A—All of the names of the company are all of the names that were then attached to it. Some names were afterwards attached to it.

Q—Do you remember their names?

A—A good many of them.

Q—You don't remember them all?



1188 A—I don't know but that I would know them all if I heard them read off. I have not seen the names since that I know of. I went to Havilah on one occasion, and the County Clerk read it again to me.

Q—Do you remember the amount of water claimed in that notice?

A—Yes, sir.

Q—Do you remember the size of the ditch it was to be taken out in?

A—Yes, sir; the intention of it was 30 feet.

Q—Do you remember what was stated in the notice about the size of the ditch?

1189 A—Yes, sir.

Q—What was it?

A—Sixty feet of water under a four inch pressure. That was stated in the notice.

Q—Do you remember what was stated in the notice in regard to the width of the ditch?

A—It was 30 feet wide and two feet deep.

Q—That was stated in the notice?

A—Yes, sir.

Q—Do you remember what was stated in the notice in regard to where the water was to be taken out?

1190 A—I don't remember that.

Q—Do you remember what was stated in the notice as to where the point was, from which it was to be taken out?

A—I do. It was at a point beginning four miles south of the junction of the Old and New river.

Q—And that was stated in the notice?

A—Not four miles south, but four miles down the river.

Q—And that was said in the notice, was it?

A—Yes, sir; more or less. That was stated in the notice that was posted.

1191 Plaintiff objects to showing the record to the witness, on the ground that the foundation has not been laid for showing it to refresh the recollection of the witness.

Objection overruled.

Plaintiff except.

(The Record is shown to the witness.)

Mr. HAGGIN—Is this a copy of the notice which you saw posted?

A—I am familiar with all those names.

Q—Is that a copy of the notice which you saw posted?



1192 A—Yes, sir. There is one name that I can't make out fully, the others I know.

Q—That is P. Veder?

A—Yes, sir; old man Veder.

Q—That is a copy of the notice that you saw posted?

A—Yes, sir.

Q—Is that the notice that you had recorded?

A—Yes, sir.

Mr. HAGGIN—We offer this notice in evidence.

Mr. HOUGHTON—It of course goes in subject to the objection we have made.

1193 (The Record is here read in evidence, and is in the words and figures following, to wit.):

“ LOCATION OF WATER DITCH.

“ Notice is hereby given that we, the undersigned, have located and claim a certain water right and ditch privilege for irrigating purposes on New Kern River, Kern County, California. Said water right and ditch privilege is described as follows, to wit:

1194 “ Commencing on New Kern River two miles, more or less, below the forks of the Old and New Kern River, and running to Buena Vista Lake. Said ditch to run and contain 60 cubic feet of water.

“ T. J. Barnes,

B. G. Brown,

“ H. T. Harris,

J. R. Watson,

“ Edward Harris,

Jno. Hopkins,

“ Pinkney J. Waldron,

N. M. Brown,

“ D. H. Dean,

Peter O'Hara,

“ G. D. Delbray,

W. Saucer,

“ C. D. White,

Horatio Seymour,

“ J. McCutcheon,

A. A. Cochran,

“ A. C. Kelley,

Jesse Cole,

1195 “ Jno. Oulton,

George Carlow,

“ J. Constantine Haggennetta,

“ H. C. Costello,

J. E. Peltus,

“ Jas. B. Veeder,

Jos. Bennett.

“ And shall be known as the Buena Vista Water Ditch Company.

“ Dated July 15, 1870. A full, true, and correct copy of the original, recorded at the request of Jesse Cole, July 19, 1870, at 9 o'clock A. M.

“ T. J. WILLIAMS,

“ Recorder,

“ By A. A. BERMUDEZ,

“ Deputy.



- 1196 "Recorded in Volume 1, page 149 of Miscellaneous Records of Kern County."

Cross-Examination of

PETER O'HARA.

Mr. HOUGHTON. Q—Do you say that you had that recorded?

A—Yes, sir, at Havilah. I took it there myself, and handed it to the Recorder. I can't tell you who posted that notice. John Oulton was said to have posted it. I don't know who posted it.

- 1197 Q—You were speaking of the amount of water running in Old River prior to 1876, when the head-gate was put in. What proportionate part of the water that run down the main part of the river, ran down into Old River at that time?

A—That would be very difficult to say. I have often thought there would be one-fourth of it perhaps running into Old River, and the balance run down New River. There might be more or there might be less. I am satisfied there was fully that.

- Q—How much land was irrigated from Buena Vista Slough in 1870?

- 1198 A—I don't think there was over 200 or 300 acres. In 1871, not a great deal more; in 1872, it was gradually increased a little. Perhaps it might increase at the rate of 20 per cent. from year to year.

Q—Then that would make about 300 acres in 1872?

A—I think so.

Q—How much would it be in 1873?

A—It is a very hard question to answer; but I know that everybody was still breaking up a little more; and I think it was increased at about that rate; I could not state with any certainty.

- 1199 Q—How much was there in 1872?

A—About 200 acres in 1870; not much more in 1871.

Q—Then you think it was increased after that; about 25 per cent?

A—Yes, sir; I think it did. I am satisfied they broke up considerable more the next year, and so on.

Q—Did that increase in that way from 1876?

A—The farmers didn't progress very rapidly, I know.

Q—How much was cultivated in the Buena Vista Slough there from 1876?

A—I could not state; I don't know exactly how much there was. It would take some time to calculate it. I



1200 am satisfied there was a thousand acres in 1876 cultivated. I am satisfied there was that much. I can't speak accurately, because I don't know, and never calculated it.

Q—How much is irrigated at present from that canal or slough?

A—I presume there are 2,000 acres, or more.

Q—Who is the Secretary of that company now?

A—I don't know; I think it is Mr. Brower, here in town. Mr. Canfield, I believe, is the President. He was, the last I knew of it.

1201 Q—Were you at the head-gate of this canal, when the new one was put in?

A—I was not when it was turned in.

Q—Do you know what year it was that that head-gate was changed? Didn't you say that that head-gate was changed?

A—Do you mean the canal or the slough?

Q—The head-gate of the canal or slough; you say you put in one first in 1870, and it was changed in 1875?

A—When we first turned it in from the head-gate, I was there.

Q—Did you say that that head-gate was changed in 1875?

1202 A—You are speaking of the head-gate of this new canal when it was turned into the new canal?

Q—Yes, sir.

A—I was not present when it was turned into the new canal.

Q—When was that head-gate put in, in the new canal?

A—No head-gate was put in, in the new canal.

Q—The head-gate was put in at the head of the river in 1870?

A—Yes, sir.

Q—What change has been made in that head-gate since then, if anything?

1203 A—They commenced the construction of the canal about a mile below, but the original head-gate remains where it was.

Q—Do you take water through the original head-gate now?

A—Yes, sir.

Q—Has that head-gate been changed since you put it in, in 1870?

A—There has been some repairs made, but the substance of it has not been changed. The sills, etc., are the same; to the best of my knowledge, that has not been changed.



1204 Q—I understand there was a change. When was that change made?

A—That change took place about 1875. It was done by the Buena Vista Company.

Q—Do you know who the man was who did the work?

A—I don't know who the company was that were engaged at the work.

Q—Don't you know who the man was who superintended the change in that head-gate?

A—I don't know who did the repairing on the head-gate.

1205 Re-direct Examination of

PETER O'HARA.

By Mr. HAGGIN. Q—Did you say that there was a change of that old head-gate and the putting in of another head-gate?

A—No, sir; I didn't say so. The same old head-gate is still there.

Q—When you speak of a change, what change do you mean?

A—I mean to say that the change that was made—  
1206 there was a part of the floor put in, and the method for receiving water was changed. We formerly had a head-gate that we raised up, when they first put it in, and it was changed then to drop-boards; the size or capacity of the head-gate was not changed any. That remains the same as it was when we first put it in.

Q—Then these were simply repairs that you made on the head-gate?

A—That is all.

J. J. DARNEL,

A witness for the defendant, being duly sworn, testified:

1207 To Mr. FLOURNOY—I reside on the north side of the river, opposite Bakersfield, Kern county. I have lived there about eight years, the 1st of December next. It is about three miles from Bakersfield, on Section 7, Township 29, Range 28.

Q—Do you know anything about what is called Beardsley Canal?

A—Yes, sir. We commenced work on that canal in December, 1873. There was a notice of appropriation of water by that canal. The notice was posted on the 2d day of December, 1873. The work on the canal was



- 1208 commenced within a few days afterwards, probably three or four days afterwards we commenced on it. I saw the notice posted, I think, some fifteen or twenty steps below where the present head-gate is on the river. The size of that canal is fifteen feet wide and three feet deep. Its present length I do not exactly know; it is somewhere between seven and eight miles. I think I can tell the sections it runs through without going to the map. I think it starts from Section 3 and runs through a portion of Section 4, a portion of Section 9, and Section 8, Section 7 and Section 12. After it passes through 12 I do not recollect. It passes somewhere about the line between 1209 12 and 13. It crosses the railroad, and it runs on the north side of the James place. I know what became of the notice that was posted. Some several months afterwards I was working on the ditch, and I found the notice. It fell off the tree, and I found it in the brush and picked it up and carried it home with me. I have it in my possession. I have it with me; at least, I think I have. (Produces a paper.) It is pretty well worn out—dilapidated. I do not suppose you can read all of it. This is the notice that was posted at the head-gate of the Beardsley Canal on the 2d of December, 1873. I think 1210 that is the date it bears.

Mr. FLOURNOY—We offer this in evidence. We will read it.

Mr. HOUGHTON—After it is read we will offer our objections. It goes in, subject to the general objection. After it is read we will make a special objection. The same objections we have made before apply.

Mr. GARBER—Make your objections now.

- 1211 Mr. HOUGHTON—The general objections we have made to all of them. We object to it on the further ground that it fails in any manner to comply with the provision of the Civil Code, relative to a notice of appropriation in connection with water rights. First: It fails to state the number of inches that will be claimed of water. Second: It fails to state the place of intended use. Third: It fails to state the means by which they intend to divert it, and the size of the ditch, flume, pipe or aqueduct through which they intend to divert it. On those additional grounds and the other grounds that we made before to all of the notices.

Mr. MCALLISTER—We make the further point that, as we claim as riparian proprietors, in that respect this notice of appropriation can have no validity or force against us



1212 The COURT—I understand that is the general objection to all of them.

Mr. McALLISTER—Yes, sir; I thought I would express it.

Mr. HOUGHTON—We do not waive any further objection made; that it is irrelevant and immaterial.

The objection is overruled. Plaintiffs except.

The notice is read in evidence, and is in the words and figures following, to wit:

1213 “Kern County, California, December 2nd, 1873. We, “the undersigned, claim this right as marked by stakes “and blazes, for the purpose of constructing a ditch for “irrigating purposes, and we will commence work as soon “as practicable.

“W. G. SWINNEY.

“H. S. SWINNEY.

“S. W. READ.

“TAYLOR.

“J. J. DARNEL.

“Size of ditch, three feet by fifteen feet. Grade, one “quarter inch to the rod.”

1214 Mr. HOUGHTON—As this has been read to the reporter, I desire that it shall be stated what followed the signatures and what precedes the signatures in that notice.

Mr. FLOURNOY—I have read it in that form, so that there can be no mistake about that.

Mr. HOUGHTON—I want to be sure that that is right. I understand that the words, “size of ditch, 3 feet by 15 feet; grade, one quarter inch to the rod,” follows the signatures; that is, that the signatures are prior to that.

The COURT—I presume the reporter so has it.

Mr. FLOURNOY—I read it in that form.

1215 The WITNESS—I know that this is the notice that was posted up there, for I am the man that wrote it, and I identify that paper as the notice. There was a notice posted afterwards which is on record. We sent a copy of this notice to Havilah to have it recorded, and it got mislaid, and it never was recorded; and after the archives were removed to Bakersfield, we examined here and did not find it on record, so we had another one recorded. It was also posted. I do not know who posted the other one; I think I posted it. I have seen it after it was posted. It was posted pretty near the same place as the first one, on the line of the ditch, up near the head-gate. I do not recollect the date of the second notice. It was posted along in the spring some time; it might have been



- 1216 April or May, 1874. I do not know the date that it was posted exactly, but it was some time in the spring of 1874. I think it was recorded. The work had begun on the canal before the second notice was posted, and before it was recorded. I think the contents of the second notice—the subsequent notice—was something similar to the present one. The words might have been varied somewhat. I think, probably that the second notice gave the section that it commenced on; on or near Section 3. At the time the first notice was posted, we didn't know the number of the section. I think I would recognize the second notice if I were to see it, or a copy of it. The same names were on the second notice that were on the first. I don't know what has become of that second notice. I have no knowledge of where it is. I wrote the second notice; it was similar to the other, with the exception that the point of beginning was stated in there. I think it might vary in some words. I do not recollect whether there was any change in it except that. Probably if I was to read the notice, it would refresh my memory as to what was in it. I do not recollect whether I handed that copy in to the Recorder or some other parties, I cannot say. I think, probably, this second notice named the sections this canal was to run through. I do not recollect that I have seen that notice since it was on the ditch. I think it claimed something similar to the other in regard to the amount of water—gave the size of the ditch, made a difference in the grade. That first notice gave a quarter of an inch to the rod, and I think the other one reads "one-eighth of an inch." I think that was posted in the Spring of 1874. I do not recollect the date that was put on. It might have been copied from the old notice; it might have been dated back to the first notice in December; I do not recollect.
- 1217
- 1218
- 1219 Q—But you think that notice was similar to the first one? It was intended to claim the same water?  
 A—Yes, sir, intended to convey the same idea. There was no material change in the one from the other.  
 Mr. FLOURNOY—I want to show that this is a copy on record, and then offer the record.  
 Mr. HOUGHTON—The witness seems to remember what this notice claimed. I do not think it is necessary to show it to him to refresh his memory.  
 [The objection is overruled. Plaintiffs except.]  
 Mr. FLOURNOY—(Showing Record Book.) Read that



1220 and see if it is the second notice to which you refer, or a copy of it?

A—Yes, sir; I think that is the notice that I wrote.

Mr. FLOURNOY—I now propose to read this notice.

Mr. HOUGHTON—We make the further objection before it is read, that they have not accounted for the original; they cannot read the copy until they have done so.

Mr. GARBER. Q—When did you last see that notice? The second one? The one that was posted?

A—I do not know when I saw it last; I do not know what has become of it; it was posted at the head of the  
1221 ditch; it was written on paper, and exposed to the elements; it might have fallen off, or somebody might have taken it off; I do not know; I could not tell you how long since I saw it there; the last time I recollect to have seen it there was some time during that summer or fall in 1874; I have not seen it since; I have been there since a number of times, but did not see that notice there; I don't know where it is.

The COURT—The objection is overruled.

Mr. HOUGHTON. Q—I understand that this copy that you testified to not having seen since, is the notice that was posted?

1222 A—Yes, sir.

Q—The testimony you have given in regard to the notice you have not seen since was as to the notice that was posted?

A—Yes, sir; of the second notice that was posted.

Mr. HOUGHTON—Note an exception.

The notice is read in evidence from the original Record Book, and is in the words and figures following to wit:

“ NOTICE.

1223 “ *Kern River, Kern County, California.*

“ We, the undersigned, claim from this notice, down  
“ the river, the right of way for the purpose of construct-  
“ ing and digging a ditch for irrigating and other general  
“ uses, commencing on or near Section 3, Township 29,  
“ Range 28 East, M. D. B. and M.; thence through Sec-  
“ tions 10, 4, 9, 8, 7, 12 and 11; thence in a northwesterly  
“ direction towards Poso Creek. Capacity of ditch (3)  
“ three feet deep and (15) fifteen feet wide; water meas-  
“ ured under a four inch pressure. Grade of ditch, one-  
“ eighth of an inch to the rod.



1224 "This the 2d day of February, 1873.

" WILLIAM G. SWINNEY,  
 " HENRY S. SWINNEY,  
 " SAMUEL H. READ,  
 " BENJAMIN TAYLOR,  
 " J. J. DARNUL.

" A full, true and correct copy of the original re-  
 " corded at the request of , August 28th,  
 " 1874, at 4 o'clock P. M.

" F. W. CRAIG, Recorder."

1225 The WITNESS—The work was kept up on the ditch;  
 after putting up our notice on the ditch, we went to  
 work and ran our levels on it; that is the first notice;  
 we ran down on the plains to see what direction the  
 ditch would run in; then we went back to the head of  
 the ditch and started in to dig our ditch; I think that  
 was between the 1st and the 9th day of January, 1874;  
 sometime between the time we posted the notice and  
 the 9th of January; I do not recollect; it was before  
 the 9th anyhow; we opened our ditch there, to the full  
 width and size, for a hundred feet, and turned the water  
 in; I do not recollect the number of days we were at  
 1226 that part of the work; we worked until we completed  
 one hundred feet and then turned the water in.

Q—What kind of work did you have? How were  
 the banks? What kind of a cut was it?

A—Well, the dirt was all to move to one side, a per-  
 pendicular bank almost on the other side; we had to  
 cut four, or five, or six feet deep on the upper side; it  
 was a good deal of work to accomplish that; it was con-  
 siderable work; a kind of hard cement together with  
 the soil and asphaltum; a very hard cement that we had  
 to cut through; that made it a very considerable labor  
 1227 to perfect that part of the ditch; we got out of that  
 kind of soil down at the lower end of that hundred feet;  
 on the upper side, next to the hill, probably we had to  
 cut six feet deep, more or less; on the lower side it ran  
 down to the edge of the water.

Q—What did you do with it, where it ran down to  
 the water? did you construct a bank?

A—We let it out from the south bank into the river.

Q—Let the water out there at that point?

A—Yes, sir.

Q—At the head of the ditch, on the south side, what  
 construction did you put up?

A—Sir ?



1228 Q—At the head of the ditch, on the south side, did you construct anything on the south side of the ditch, at the head of it?

A—No; we had an island that abutted our level, right up against an island on the side next to the river; we threw the dirt on the side next to the river; after completing that hundred feet, we went on building the ditch below right away without any delay about it; there was no delay about it, because we wanted to get the water that spring to make a little crop; I am speaking of the spring of 1874.

Q—How far did you construct it that spring?

1229 A—We got it down to the gravel pit, which is on Section 9; in getting down to that point our work was mostly through a kind of loamy soil and through timber.

Q—Carrying the width and the depth of the ditch uniformly?

A—No, sir; at places we had dirt to move to one side; most of the way we had; we had dirt to move to one side.

Q—Had to throw the dirt to one side where one side would be lower than the other?

A—Yes, sir.

1230 Q—You spoke of the gravel pit—what sort of a place was that?

A—Well, it is a high bluff, some ten or twelve feet high; we got that far in June, 1874; I do not recollect what length the ditch attained then; you will have to make a calculation from Section 3 to Section 9; I do not recollect the angle; we went through that gravel pit during the summer and fall of 1874; we had a great deal of soil to remove; it was a perpendicular bank, which was all to remove there; we had seven, or eight, or nine feet of dirt to move off, and gravel, to make it a fair ditch; I mean we had to cut through seven to nine feet in depth; the length of that cut along through that gravel pit was between a quarter and half a mile; it was heavy work and it cost one hundred and twenty-five to one hundred and thirty dollars to the rod; we did not get clear through that in the summer and fall of 1874; we finished it in 1875; I do not recollect how far we got the work in 1875.

1231 Q—I asked you a question whether or not you kept up work diligently along the ditch until its completion?

A—Yes, sir; there was part of the parties—three men that were interested in the ditch that gave their interest up—but I and another, Mr. Swinney—Wm. Swinney—



1232 we were the men that were carryrng this work on; we were of limited means, so we had to do the work principally ourselves; we took the first water out and used it for the purposes of the ditch, for irrigation, in 1874, in the spring; that ditch has been used for irrigation purposes continuously since then every year; I do not think the water has been out of it a season since, only when ordered out by some of the ditchers below; I could not tell you what volume of water has been in general use in the ditch there; I have never measured it; sometimes it carried its full capacity; sometimes it did not.

1233 Q—Was there any time since 1874, when you first commenced taking water out of it, when you were disabled from using it for the want of water?

A—At times, when some of those other ditchers below told us to shut down, that they didn't have any water, that was the only time the Buena Vista Ditch ordered us to shut off our water; we did so; Buena Vista, I suppose, was an older ditch; I have never seen the records; I do not recollect the year they ordered us to shut off our water; I could not tell you, because I was not the sanquero on the ditch all the time; it was in 1876, I guess, or 1877; 1876 probably; I do not recollect whether I had to shut off any water in 1879; I think probably we did; I was not sanquero on the ditch that season; Mr. Broad was sanquero on it when the water was turned off first. Our ditch, the Beardsley Ditch, was one of the highest up the river; there was nothing but a little mining ditch above us, on the opposite side of the river; we were above all the irrigation ditches this side of the canal; I had to shut off water at the instance of the Buena Vista Ditch.

1234 Q—How was the river in 1877 opposite you, in the spring and summer, during irrigating season, opposite the mouth of your ditch?

1235 A—Well, the water was tolerably low down at one season during the summer.

Q—How was it—was there plenty for your uses? Did you use it all summer?

A—Well, there was plenty of water there, but then they would not let us use only a certain amount of it out of the gate: if we took more water than our share they would serve an injunction on our ditch; I thought so; I do not know this myself; I only know it by what Mr. Broad told me; I didn't see it shut off; I saw the ditch after it was shut off; I supposed it was in the ditch;



1236 there was no water in the ditch at all to irrigate with; we kept enough for stock.

Mr. HOUGHTON—I move to strike out what he said about the water—shutting off the water from the ditch; he don't know anything about it.

The COURT—It is simply hearsay. The motion is granted.

Mr. FLOURNOY—I will ask you if in 1877 do you know the fact that the ditch had no water in it?

A—A part of the time it had water in it, and sometimes it had not; I do not recollect what time it was; I do not know as I can tell you exactly how the water was  
1237 in the river opposite the head of my ditch in 1879; probably Mr. Beardsley might tell you; I think complaint was made to him. He was the President of our Company. I do not recollect whether any of the owners of Buena Vista Ditch talked to me about it in 1879?

Q—Do you remember whether anybody—

A—(Int.) Oh, yes, yes, I do; Mr. Canfield spoke to me about it in 1879. He said that he had—

Mr. HOUGHTON—(Int'g.) One moment. We object to this as irrelevant and immaterial. I don't see what effect it can have in this case. The mere fact that a  
1238 ditch six, or eight, or ten miles below on the river, the owners of another ditch finds fault, orders them to shut the water off.

Mr. FLOURNOY—We only want to show the amount of water in the ditch at that time, for the purpose of showing that this small ditch could not use its necessary quota of water at that time.

Mr. HOUGHTON—That would not follow at all.

Mr. GARBER—It bears on this: What effect it will have, will be fully determined when we have fully argued this whole case. It certainly bears on this. They may undertake to claim, and the line of examination indicates that they will undertake to claim, that these ditches  
1239 have no right at all as against them, or that their rights are not by any means so large as the present capacity and claim of those ditches. They will claim, I have no doubt, in the argument, to cut down and destroy the rights of these other ditches, among other things, that they have not taken all this amount of water, or this much water, during all the period in question. We have a right to show the reasons, if we can, why that is so; to protect the rights of these ditches, because it is perfectly evident that the legal rights of these other ditches will form a material element in the final and



1240 complete determination of this case. What may be the weight of that testimony is another question.

The COURT.—Upon this question as to the evidence in reference to these ditches and the quantity of water, etc., the question was raised, if the Court recollects rightly, by a motion to strike out part of the answer. That motion was denied. It was stated by the Court at that time that the evidence would be admitted under exception. The evidence has been admitted under exception. I understand all evidence about the ditches, or the principal portion of the evidence, has been objected to by counsel and has been admitted under objection to be determined hereafter on the final argument of the case. I don't know what bearing particularly this will have. I shall overrule the objection and let this testimony be admitted.

Mr. HOUGHTON—We take an exception.

Mr. MCALLISTER—What was the last question and answer?

(The Reporter reads.)

Mr. HOUGHTON—We make the additional objection as to what Canfield said, that it cannot be given in evidence by this man. It is hearsay.

Mr. FLOURNOY—I understand that the point is this:  
1242 I am asking him about complaints of any of the owners of the lower ditches. If it turns out that Canfield made any such complaint, and had no right to do it, that is another matter.

Mr. MCALLISTER—He is now proposing to give in evidence what Canfield told him.

Mr. FLOURNOY—Not what Canfield told him about somebody else.

Mr. GARBER—We propose to follow that up.

The COURT—I believe it was in evidence yesterday that Mr. Canfield was President of Buena Vista Ditch.

Mr. HOUGHTON—That he is now. Yes, sir. It don't  
1243 follow that he was three years ago.

Mr. GARBER—We prepose to prove that he had a right to complain. If we don't, it will be immaterial.

The COURT—Very well, proceed.

Mr. HOUGHTON—Note an exception.

Mr. FLOURNOY—What did Canfield say?

A—Well, I was down to his place; I went down there to see him about getting some sheep pastured. I asked him if he had got the water down to his place; he said he had not. Says he, "If I had known I could not get the water down to my place, I should not have had



1244 " the water turned off from your ditch; you had just as  
" well have had it as for some one else to have had it;  
" it has done no good."

Q—He said that the water you had turned off had not reached his ditch?

A—No, sir.

Mr. GARBER—I don't think that is admissible myself. It is not what——

Mr. HOUGHTON (int.)—Not what you expected.

Mr. FLOURNOY—I thought it was some order of Canfield's to turn off the water that was the subject of conversation.

1245 A—We had turned the water off; he had ordered the water shut off; I seen him afterwards.

The COURT—Enter an order striking out the testimony as to conversation with Canfield.

The WITNESS—He said it had not got there; he said, "If I had known it would not get ——"

Mr. GARBER (int.)—Never mind. That is hearsay.

Mr. FLOURNOY—I thought this conversation had reference to the command to shut off the water.

Q—Do you know the condition of the river in the spring and summer of 1879, and the fall of 1879—the various conditions of it about opposite your place or

1246 the head of your ditch?

A—No, sir; I don't recollect particularly about it, because I was not at home in the fall but a very little of the time; I think it was very low, in fact, I know it was low in the summer.

Q—You know it was low?

A—Yes, sir.

Q—Was it unusually low—lower than in ordinary seasons?

A—I think, perhaps, it was from the fact that I lost a part of my crop for the want of water.

1247 Q—Lost a part of your crop for the want of water in 1879?

A—Yes, sir.

Cross-examination of

J. J. DARNUL.

(To Mr. HOUGHTON)—When I commenced the construction of this ditch I continued it for a hundred feet, then turned in the water for that hundred feet and



1248 then the water ran into a slough and ran back into the river; I do not recollect how long the water continued to run in that way, probably until sometime early in the spring; after the water was turned into this slough I do not think it had to run over twenty or thirty steps before it ran back into the river; there was no land irrigated while that water was running in that condition; and I could not tell you how far the ditch was completed at the end of the year; we got the water down to Section 9; I did not say we had the ditch completed, for we did not have it completed that far. Up to the spring of 1874; I cannot tell how much more we had to build.

1249 Q—Could you tell whether it was a mile, or a mile and a half, or two miles that you had completed before?

A—To some point or other; I do not recollect the point at all; from somewhere between where we used the water on the way down, a small ditch; I do not recollect how far now.

Q—How much did you add to the hundred feet before you took water out for irrigation in the spring of 1874?

A—We added a good deal, considerable to the ditch that was partly built, but not finished.

Q—How far to irrigate in the spring of 1874—how far did you carry the water in your main ditch?

1250 A—I suppose it must have been a mile or more; I could not tell now; from that point it was taken out, on the line of the ditch, in another smaller ditch farther down to where we used it; I do not recollect how large the smaller ditch was; I think eight or ten feet; it was not full size; it was ploughed out full sized but not all taken out; it was not all completed yet; it was eight or ten feet wide and down to the grade of the ditch in depth; I do not recollect how much water I took through that during the spring of 1874, nor how much land I irrigated; we did not use but very little of the water;

1251 Mr. Swinney and I was the only men that used any from it; I don't think I cultivated more than a quarter of an acre, for a little garden, to get the water down; how much Swinney irrigated I don't know; I do not recollect how much I extended that main canal in 1875; we worked at it continuously until we got it down as far as we could; my place is about four miles, where I am living now, from the head of the canal; I think I took that canal, the main channel, and continued it down to the point where I am now living in 1875; I do not recollect whether we got it any further than that or not; I do not recollect how much I irrigated in 1875; I



1252 did not irrigate very much, individually, not to exceed ten acres; Mr. Swinney, I think, irrigated from that canal in 1875; I do not recollect who else; I do not know how much land Mr. Swinney had irrigated in 1875; he owns about 80 or 160 acres there.

Q—Did he have forty acres under irrigation that year?

A—I don't know; I hardly think he did.

Q—How far was that canal constructed in 1876?

A—Well, I have got no date here; I cannot recollect myself; it is now somewhere between seven and eight miles long; I think it reached the full length that it is  
 1253 now constructed in the year 1876, or in the spring or winter of 1877. There has been no extension of that canal since 1877; more than a kind of a waste ditch, in case the water was not all taken out, to waste it on the plains; that canal was constructed to its full width down to the present terminus in 1877 and 1878; it has not been widened since to amount to anything; we clean it out once in a while; the lower end now where the canal terminates I suppose is about ten or twelve feet wide; it extends up the canal that width about a mile, and from there for about a mile or a mile and a half up it is about twelve or fourteen feet wide; above that and all  
 1254 the way to the head-gate the width is fifteen feet. I had somewhere between ten and fifteen acres irrigated in 1876; I do not recollect who else was irrigating from that canal in 1876; I think Swinney was not irrigating in 1876; there was a man named Robb had his place that year; I do not know how much he had under irrigation in 1876; I do not recollect whether any one besides myself irrigated or not that year—besides myself and Mr. Robb. In 1877 I did not irrigate any myself; there was some land irrigated on my place by other parties; I do not recollect how much they cultivated; it might have been forty acres; I do not recollect  
 1255 whether Robb was living there in 1877, or whether Morrison was living there; some one was living on that place in that year; I do not know how much land was irrigated by the person who lived there; I think perhaps there was some one else irrigating from that canal in 1877; I do not know but what Beardsley and Mann irrigated there; I do not recollect what year Beardsley lived on that canal; I think he lived on it in 1877; he was on about the line of the canal; the ditch was not completed to his place, I don't think, until along about that time; his place is pretty near the lower end of it;



- 1256 there are three or four places along the canal between my place and Beardsley that have been sold since; Mr. Mann's place was between my place and Beardsley's in 1877; Mr. ——— owns it now; Mr. Mann resided on it in 1877; I don't know how much land he had under cultivation; I don't think he cultivated any great sight; I have passed along his place several times; there was no one else except Mann between my place and Beardsley; I don't know how much land I irrigated in 1878; I do not own the place there now at all; I left it in 1878; I sold it in the spring; I had part of the crop in, probably twenty-five or thirty acres; a man by the name of
- 1257 Flippin took possession of that place after I sold it; I don't know how much land was irrigated from that canal in 1878 besides my own; I have been on the land since all the time; I was sanquero on it last year; all of the year 1880; I don't know how much land was irrigated; I guess somewhere between three hundred and a thousand acres; in 1880 Mr. Kelly, Mr. Flippin, Mr. Wilson, myself and Mr. Amy irrigated lands from that canal; it was on his ranch; it was on the Amy ranch; I irrigated ten or fifteen acres myself in 1880; I don't know how much those other parties irrigated; there were other parties irrigating from that canal in 1880;
- 1258 Mr. Amy—it was on his ranch—Mr. Bohn, Mr. Dumble, Mr. Roberts, Mr. Beardsley, Mr. Fry and Mr. James; I am not sanquero there now; Walter James is President of the Company; Mr. Beardsley is Secretary.

# Re-Direct Examination of

J. J. DARNUL.

- By Mr. FLOURNOY. Q—You were asked about that cut of a hundred feet and the water turned back into a slough; you described that. Did that remain as a permanent arrangement for any length of time? I mean this plan of turning the water back into the river.
- 1259

A—That was only temporary, until we could complete it; we considered that if we would turn the water in that, it would be an appropriation; it didn't interfere with our continuing on our work of the ditch; we kept right along, and, as soon as we got farther down, turned it right into the ditch; I know that Mr. Robb used water from the ditch the year that he was there; Mr. Gildersleeve used water from the ditch, and Mr.



- 1260 Thompson used water from the ditch; Mr. Donaldson and Mr. Gaphney use water from the ditch now; but I don't think they did at the time I was giving you those other names; Mr. Gildersleeve and, I guess, Mr. Thompson, did too; a man by the name of Wrinkler used water from it when he came on to the Robb place; in 1880, I think, we ran about a foot and from five to eight-tenths of a foot of water in the ditch.

J. R. WATSON,

- 1261 A witness for the defendant, being duly sworn, testified:

- To Mr. FLOURNOY—I reside eight or nine miles southwest of here, at what is known as Canfield settlement, or Barnes settlement, on Section 24, Township 30, South Range 27 east; I first went there in the latter part of 1869 or '70; that is, I was here; I didn't move here till 1870 with my family; I was there though in 1869; I moved down to locate in the latter part of 1869 or in 1870; I was backwards and forwards to Havilah; I think it was in 1870 or 1871 that I moved my family  
 1262 down, and since that time I have been living there all the time with the exception of about six months; I left here and went down to the Cotton Ranch; I believe that was in the spring of 1872; I am acquainted with the Buena Vista Slough ditch; I have known it since the latter part of 1869 or '70; I used water at the time for irrigating purposes; I think it was in 1870; I continued to use water out of the slough up to the time that the company built that canal, what is termed now the Buena Vista Canal; that slough was of various widths from the head to the mouth; it would carry quite a body of water; I think it could carry more water than the present Buena Vista Ditch carries; I don't remember all  
 1263 of the persons who used water out of the Buena Vista slough; before the present Buena Vista Canal was constructed, there was quite a lot of persons living up and down the slough: Mr. John Dalton, Mr. Barnes, the two Mr. Harrises, Mr. Brown, Mr. White, Mr. O'Hara, Mr. Pettit, Mr. Veeder, Mr. Gordon, myself, and then there was others whom I don't remember; they used water out of the slough until the time the Buena Vista Canal was constructed, or until they sold out; parties used to come in—the land was changing hands; there



1264 was also Mr. Keith, that I bought out his pre-emption right; they used this water out of the slough before the canal was constructed.

Q—How was the water regulated in that slough—water not used above it? Do you know? Have you ever been there, ever seen that yourself?

A—I think there was a temporary headgate put in first, and a better one afterward sometime. The sand and trash was cleaned out at the head.

Q—Do you know anything about how the water was appropriated in the Buena Vista Slough?

1265 A—Well, each and every person took out about what they wanted; there was no particular regulation about it; every man that used it on the slough got about what he wanted.

Q—I don't mean as to the using of it, but how was the appropriation made of the water of the slough? Was there any company or organization or combination of the people?

1266 A—There was a company, yes, sir; there was a company; I disremember; about all the names that I mentioned was the company, and then there was some others. There was Mr. Maginetta, I failed to mention, and Mr. Waldron; they were also persons who were using water out of the slough. The slough was appropriated as a canal; they claimed the right of way; I don't remember that I ever saw the notice of appropriation before it was put up, or anything of that kind; I know there was a notice put up; that is, that there was an understanding to that effect; I forget now who was sent to put it up, but there was a notice naming the shareholders; there was a notice stuck up; I don't remember that I ever saw it after it was stuck up. I was one of the shareholders in the original; water was taken out and used every year from the time of the construction of the Buena Vista Canal.

1267 Q—The same parties, since the construction of the canal, have used the water out of the slough?

A—Not entirely; there has been purchases and sales. It has been used partly by the same parties, and partly by others.

Q—What work did those parties do towards the slough in any way, the parties who appropriated it?

A—Well, it was cleaned out pretty much all the way down; but towards the headgate there was more work done along down. It was kept in tolerable good condition all the time; there was some work done, more or



1268 less, every year since 1869 or '70; I am acquainted with what is known as Old River; I cross it frequently in coming from my house to Bakersfield; I have known Old River ever since June, 1868; I first crossed it about that time at what was known as Live Oak Crossing, or the lower crossing of Old River; I believe it was called the Lower Crossing, or Live Oak Crossing, or Live Corral.

Q—Where would you designate that? What is it known as?

A—The Charleton Crossing; the Panama Crossing now leading from Buena Vista Lake over to the adobes.  
 1269 In June, 1868, Old River was bank full; it was not swimming, but was a full high stream; it was running out over the banks at low places, spreading out over the country. I have seen it since then, every year from that time to this; I have seen it at various points and at different times of the year since 1868; I have crossed it every year, I suppose, from that time up to the present; I didn't cross it frequently in 1868 and 1869, but I have since 1869. There was more or less water in it all the time up to the time the headgate was put in, except very dry years; I have often crossed it at what is known as the Anderson & Noble Crossing, or the Anderson  
 1270 Crossing; I have crossed it at that point before the bridge was built. Sometimes it was full and sometimes down before the bridge was built; not bank full, because the banks were very high there; there would be quite a body of water; sometimes I would cross below in preference to crossing there on account of the high water; I was afraid to try to cross it. I have crossed there since the bridge was built, but I disremember what year the bridge was built; I have seen the water high since the bridge was built; I have seen it very full, perhaps as full as it was before the bridge was built.

Q—When the river is full in an ordinary rise, what  
 1271 kind of a bed did the river carry before you put the headgate at the Stine Canal?

A—That river carries a considerable body of water; it carries quite a body of water running from there to the lake; spreads out over the country; I am not very well acquainted with New River below the forks; I have been across it once or twice; I have crossed it above the town here; from here up to Rio Bravo, and about at the same time that I would cross Old River in going up.

Q—What was your opinion then about the proportion



1272 of water that was flowing down Old River, and the amount of water it was carrying above?

A—Well, that would be rather hard to tell crossing there and then going down here and crossing Old River; I should think Old River carried about as much water as New River; carried about half of this water up above; generally during the year carried a good body of water; as well as I remember—I don't remember exactly the different years, but as well as I remember before the dam was built, it would carry about an equal proportion of water with New River; I cannot really remember when the dam was built; I was elected As-

1273 sessor of this county in 1868, and served until 1871.

#### Cross-Examination of

J. R. WATSON.

(To Mr. HOUGHTON.) My house is on the southeast quarter of Section 24, about six miles and a half or seven miles nearly due east of Tracy's crossing on New River; I never crossed New River in 1868; I crossed it once in 1869, somewhere near where the bridge is,  
 1274 down near the home ranch; I was going along across the plains and I struck it and I crossed it; I could not tell you what place; that was in 1869 or 1870, somewhere near where the county bridge now is, I think; I think it was about September, in 1870; I don't remember crossing New River but once; I think somewhere near the James ranch, the crossing through there; it was pretty low when I crossed it in 1870, and pretty high when I crossed it in 1869, and there was a considerable body of water in 1869; in 1870 when I crossed it, there was not but little water in it; in 1869 it was about 200 feet wide, and where I crossed it there was a  
 1275 little island running around formed two channels, and I crossed from one stream to the other; I suppose it would average about a foot of water in depth; it was deeper in places.

Q—How deep was it in any place?

A—It was about three feet; in 1871, as near as I can remember, I crossed the swamp down below Tulare Lake, and I must have crossed the New River somewhere in coming to Bakersfield; I crossed New River between 1871 and 1876; not a great many times; I think I crossed it once or twice in those days when it



- 1276 was pretty high; it was somewhere near just below the county bridge, below the home ranch at the Pioneer Bridge; I found considerable water running there; I think about as it was when I crossed in 1869; in places it was about up to my horse's belly, and other places it was shallow; the deepest place I suppose about three feet; I have never crossed at that place at extreme high water. I bought my place of a man by the name of Keith or Keif; he resided on the place before I went there, but it was a different part of the section that I bought of him. Buena Vista Canal Slough left the river somewhere two or three miles below the mouth of
- 1277 Old and New Rivers; the junction of the two rivers then; it runs a southwest course, as well as I can judge, and empties the water into the Button-Willow, and that empties into the Buena Vista Lake and into the—

Q—(Int'g.) That is a natural water channel, isn't it, or was?

A—The slough?

Q—Slough.

- A—Yes, sir; natural water channel; in 1870 there was not a great deal of land irrigated from that slough; I think there must have been three, or four, or five hundred acres in 1870; I don't remember; it is sort of like
- 1278 guess-work; I could not say exactly how much there was in 1871; I think may be there was one or two hundred more acres in 1871, and may be a few more I guess in 1872; there might have been a few more acres in 1873; the year before the building of the Buena Vista Canal I suppose about a thousand or twelve hundred acres was irrigated down there.

Q—You say that new parties have become interested in this slough or canal. Who are they—those new parties?

A—Well, in the canal, Carr & Haggin; I suppose they own the majority of stock in that canal.

- 1279 Q—Have not they, within the last two or three years, taken all the water from the canal so that you have had none on your land below?

A—They have taken, I suppose, a big portion of it.

Q—Have they not, during two seasons, taken so much water on their ranches above you that you have lost your crop?

A—Well, I will tell you just how it is; it has been in this way: sometimes we would have water one day, and the next day we would not; the way it went, a man would get a little tired and quit.



1280 Q--That was by reason of Haggin and Carr taking it out above him?

A--I suppose so; I never went to look; I don't know who the President of that company is now--Mr. Brower, I believe, is the Secretary; it has been quite a while since we had a meeting.

S. A. BURNAP,

A witness for the defendant, being duly sworn, testified:

1281

To Mr. FLOURNOY--I reside in Bakersfield, Kern County; I came to Kern County the 22d of September, 1873; I am acquainted with the Stine Canal; I was employed to superintend the work on the Stine Ditch by Dr. Thornton; I commenced at the head of Old River.

Q--This map is the map (referring to Map No. 1). There is old River; here is the Stine Canal. Can you point out what part of the work you did?

1282

A--On the 15th of February, 1875, I commenced work there as foreman or superintendent, or whatever you call it, under Walter James, who was the engineer, and we cleaned out the head of the river there; some sand had washed in; it had been an irrigating canal for the purpose of irrigation, and they had put in a lot of sticks and brush; we took that out and cleaned it out; and there was a headgate partly constructed, and we finished the construction of the headgate and the cleaning out of the sand on down some two or three hundred yards below the headgate, from the headgate and the river, and from the headgate below some two or three hundred yards, I suppose; that was the first part of the work; then we moved camp, and my recollection is, it was about the 1st of April, or the 15th of April, 1875--

1283

you see it was a continuous work from February 15th on until we got down below Paul Corti's with the branch canal.

Q--Do you know where that is; on what section?

A--I once knew, but I have forgotten; I went there when it was first filed on and read the quarter-section on a sycamore tree, but I don't remember the time now.

Q--What was the length of the canal that you speak of from there to Corti's?

A--Well, when we got over there to the mouth of Chester's Lane--it is out to the west end of Chester's



- 1284 Lane where we formed the camp, and there took out this branch—ran this branch on down below Corti's; Corti's was not more than a mile or two from Kern Lake, and the work was continuous down to that point; we continued every week day; we kept the work up every week day from the 15th of February until in July—the 22d of July, as I recollect, we had finished up the work and moved all the tools and camp equipments over to the James Canal; that was the time that we finished that; we changed the size of the canal; I think it was after we got down to the place belonging to Charles Proff, we had to change the width; they went to work
- 1285 and made it wider; they undertook to make it twenty feet first, I think, on the bottom; that was when we first started it; then Mr. Carr made a visit down there, and it was enlarged; I forget just what the width was; I think it was ten feet larger; it must have been in May, 1875, that it was enlarged; they went back over the work and took out some of the banks; it was not as large as he liked; it was made a uniform canal from that on; that was all the same piece of work kept up until completed; but there was an enlarging from Charley Proff's place; they sent some men back to make it a little wider, before the headgates, before the drops were
- 1286 put in while we were constructing the work, and then it was completed uniformly all the way through; water has been used in that canal all of the time since; I have not seen it every day, but then as often as I have had occasion to go in that direction, there has been water in it; several times every year I have seen it.

Q—When you have seen it, did it seem to be carrying much capacity of water?

- A—I have seen it in a dry season when there was but little water; in seasons of high water I think there was generally a good head in it; what I would call so; I have a very slight acquaintance with Old River; the
- 1287 first time I saw it was on the 22d of September, 1873.

Q—At what point?

A—That was at the mouth of Jewett's Lane, going down from the Lane. I crossed in a stage the first place.

Q—I mean Old River.

A—Oh; I crossed that the next day after I came here. I went down to Jewett and Anderson's place with Mr. Jewett; we crossed it at the Old River bridge—what I call the Old River bridge—Jewett and Anderson's place, about where the bridge is now; it was a ford then; there



- 1288 was considerable water in it at that time; there was quite a stream, I noticed; that was about the 23d of September, 1873; in one or two days afterwards we crossed it again at Stine's Crossing. After crossing it at Stine's Crossing, I saw it again during September and October of the same year, 1873; I saw it several times during the fall of 1873; in the spring of 1874, I think it was about February, that I saw it; I remember being over at Barker's place; I saw it there; there was considerable water in it at that time, what I would call high water; there was once during the spring of 1874 I saw it at Barker's. The water was so high at the river that
- 1289 there was a woman there on horse-back—I speak of Old River; what I suppose to be Old River runs right west of Barker's house—so high that he requested me to go out and see that the woman didn't drown in the river or get dismounted from her horse, or something; that is Vining Barker's place. It was in the spring; I don't remember just what month it was; I crossed at two or three different places in the spring of 1875, in visits to Canfield; we became acquainted with the Canfield people, and we had frequently to go over there; there was two or three times I crossed it at Clark's place, where there was but little water in the river; there was once or twice I passed
- 1290 over the river there when there was considerable water; at Clark's place, near the shool-house, there is an old school-house on the other side, I crossed it in 1876 several times, in the spring time; I crossed it once or twice on the north-west corner of a piece of land claimed by Jackson; I don't remember the section; and then came down to——

Q—(Int'g.) Do you recollect what they call the Tracy Crossing?

- A—Down below Clark's Crossing, below the head-gate; Jackson's place adjoins Clark's on the south; when I crossed it there the water was very high; I was
- 1291 going from Canfield over to my place at Panama; that was in the spring of 1876; afterwards, in 1876, I went once for the purpose of crossing it; that was in June, I think, intending to go over to Canfield; I undertook to cross it; I didn't cross it at that time; I wanted to cross it at that crossing; that is west of the Inman place; I don't know what they call it; I think they call it the Inman Crossing; but it is a place west—I think their south-west corner runs to the river there, or near the river; I didn't cross; the river was too high for me to cross; I was in a two-horse wagon; it was too high to



1292 cross, and I abandoned the idea of crossing it, and drove around; the water was running very swift, and was high.

Q--Have you any idea about what the width of it was at that time?

A--Well, it was more than from bank to bank, if any one knows the width of the river; I think it is a hundred yards wide; I should think pretty near there; the water was out with the banks.

1293 Cross-Examination of

S. A. BURNAP.

By Mr. HOUGHTON. Q--At those different times when you crossed Old River, and found the river so high, has it been during the spring flood?

A--I think it was from that, or may be the melting of snow in the mountains.

Q--You say that you went to the headgate and commenced work on the Stine, or a branch of the Stine, on the 15th day of February, 1875, and found a part of the headgate there. What was the condition of that headgate when you went there?

A--There was an abutment on the west side; a floor or platform; the piles were driven all the way across the river; there was some bent put up some of the way.

Mr. GARBER. Q--Some what put up? What is that?

A--It is a scantling that they nailed the planks on to support the planks from being carried away by the water; they were bolted on to the top of the headgate--the end of the bent was bolted on to the top of the headgate; on this side of the stream there was none there at all; on this side of the stream the headgate was not completed; they didn't get across, didn't finish their work; nothing only driving the piles across; they had undertaken to build a headgate across; from hearsay I understand they were interrupted from finishing their work; interrupted by the high water. It was not finished up to the time I went there; we finished it. When I went there, the 15th day of February, I don't think there was any water running in the Old River; if there was any it was very little; there was water running in the river at that time; there was considerable water running in the river; I don't know how much; a man would step in up to his crotch by stepping off a bank



1296 there. I am speaking of the water along in New River. We were working in Old River; there was running in Old River a little stream, but then very little; you see they deepened it, cleaned it out where it deposited sand, in the mouth of Old River. I was not there at the mouth of Old River when the water was turned in after the construction of this canal; I have seen it running; I didn't see anybody in the act of turning it in; I have seen it running in there.

Q—How was the water turned in or put into that canal? How was it got there?

1297 A—Why, we scraped out the sand to get a bigger flow of water that spring.

Q—Well, when the water receded in the river how did they get the water into that canal?

A—I don't know.

Q—Did you ever see a wing dam thrown out there to throw the water into Old River?

A—There had undoubtedly been one built that we took out.

Q—You took that wing dam out?

1298 A—Yes, sir; that is the brush; I could not say if that was renewed afterwards. I was there once since; I went with Mr. Anderson; there was plenty of water running in at the time; there was plenty of water in the river at the time; I have been there but once, I believe, since I left the works. In superintending this canal I understood I was working for Carr & Haggin, employed by Dr. Thornton, and under the instruction of Mr. James—Walter James; the directions I mean. I don't know who the President or the Secretary of that Company is.

Re-direct examination of

S. A. BURNAP.

1299

By Mr. FLOURNOY. Q—You spoke of there not being any water except a little running down Old River at the time you began work. I understood you to explain that that was caused—there had been a little debris and sand washed up there; and that you took and cleaned it out. That was the first of your work.

A—There was—there had been some willow sticks or a wing dam thrown across there. After we got our head-gate done, we then went up and took that all out. We scraped first the channel out wide enough, so as to



1300 get a good flow of water into the Stine Canal, as they called it; then took out those stakes and the brush. At the times that I have visited there since the construction and saw plenty of water flowing in it, it was just an ordinary condition of the river; not a very high condition.

Q—How far does this new canal start from the head of Old River?

A—It is a very short distance between the line of this Chester Lane, if that line is produced, to the river.

1301 Q—Was there any dam thrown across, to turn the water into the canal?

A—Yes, sir; I believe so. There was a few brush, I believe, or something, put in, as I understood afterwards, in Old River. I have heard more about it than I know, because we built the canal and wanted no drops put in.

J. NIEDERAUR.

A witness for the defendant, being duly sworn, testified:

1302 I reside in Bakersfield. I have lived in Kern County since December, 1869. I am acquainted with what is known as the Noble & Baker Ditch. It is the same one spoken of as the Anderson Ditch, which heads below the mouth of Old River, a short distance, I cannot say exactly, it is but a short distance. I recognize the ditch on Map "I." That is about the course.

Q—Then the ditch marked as on Map "I," is the ditch?

1303 A—Yes, sir. I think the work began on that ditch in the fall of 1872. It is marked on the map as the Baker & Noble Ditch. I won't be positive, but I think it was in the fall of 1872 that it was commenced. The Baker & Noble and the Anderson are one ditch. It was then called the Baker & Noble; it is now called the Anderson. Myself and a partner had one-fifth interest in it. I was there at the commencement of the work on that ditch. The first thing done was cutting brush, and clearing away—it was running through an undergrowth of brush. The work was kept up until it was finished.

Q—When was the water first taken out and used for



1304 irrigation? Think over it, as to whether or not you may be mistaken about the time of the commencement of it.

A—I think I must be, for the first crop was put in—I think we put the first crop in in 1872; so the ditch must have been built in the winter of 1871-2; it must have been, because we put in our crop and irrigated it out of that ditch in 1872.

Q—Who used water from it in 1872, for irrigating purposes?

A—Captain Noble and Col. Baker, and I won't be positive whether Mr. Corchoran got the water down to  
 1305 his place that season or not; he was working on the ditch until it was completed to his place. There were several parties that used it afterward, but whether they did that season or not I don't know. Mr. Norton, I think, used some of it afterwards, and several parties. The dimensions of that ditch were either 12 or 16 feet, I won't be positive which. I did some work on the head-gate myself; the head-gate was constructed right after the ditch was commenced. The length of the head-gate was 16 feet. Water has been used every  
 1306 year along in that ditch since that time, as far as I know, every time I have seen it, and I have seen it every year, there was water in the ditch. In 1873 we used it; we were still living there then and using the water ourselves; it was used in 1874 and in 1875. The parties using it claimed the right to use it; I think so. Col. Baker, Captain Noble, Mr. Corchoran, Mr. Hughs and myself, were interested in the ditch in the start. I always took water out of the ditch whenever I wanted to use it. I know about the Gates ditch; I recognize it on that Map "I;" it is the next ditch to the Baker & Noble ditch; I should judge it is laid out on that map, because there is the same distance  
 1307 between the head of the two ditches as there is between the Baker & Noble ditch and Old River—about the same distance. It is about the same course as delineated on Map "I." The Gates ditch was commenced in 1872, I think, I wouldn't be positive. I know we put in a piece of land that we could not irrigate from the Anderson & Noble ditch, ourselves, and Mr. Hoke working for some other parties and himself also. I am almost positive that we took the water out in 1872, to irrigate our first crop that we put on that place; I think we took the water out of that Gates ditch in 1872 for the first crop. We built a small ditch



1308 to begin, in order to get water on to the place that season. That must have been built in 1872, along in July. I know that we were raising a crop of corn and could not get the water on it from the Anderson ditch. Afterwards, in the fall of 1872, we commenced enlarging the ditch.

Q—Are you sure whether it was in 1872 or 1871, that you enlarged the Gates ditch?

A—I won't be positive as to the time, because I can't. I think though that it was in 1872—in June or July, that the first work was commenced; but I can't be positive about the time. The work was done continuously on it until it was finished. After the small ditch was completed, as soon as we were through irrigating, we commenced enlarging the ditch. There were several parties went in afterwards with us; Mr. Gates, Mr. McCaffray, the Gates brothers, I think Mr. Gordon and Mr. Anderson both were interested, and myself and Mr. Hughes. Col. Baker was not interested in that ditch. Mr. Hoke had an interest, but afterwards did not have it completed. He sold out his interest, I think, to the Gates brothers. Ever since that ditch was completed, I have always seen water in there. The enlarged ditch was completed that winter of 1872-3.

1309 The size of that ditch I think was 12 feet at the bottom. Those parties claimed the right to use the water out of it. It varied from two to three feet deep. I didn't have anything to do with the head-gate of that ditch. I am acquainted with Old River. I have crossed it at Anderson & Noble's crossing very frequently from the time I first came here. I crossed it every year at different crossings; and after we located across the river here, I crossed it very frequently, and used to cross it every week once at least in 1871-2-3. At high water time we had a small boat

1310 at Anderson's crossing. I cannot say how much water it carried at Anderson's crossing at high water time, but I know it was not fordable; in crossing it at Anderson's crossing at that time, I always left my horse on this side and went over in a boat, when I went over on Sundays to see about what work was going on on the ranch. During high water time, that was the only show I had to get across. I crossed it Sundays generally. I have crossed the New River every year, but not frequently; not so often as I did Old River. I have crossed it in the neighborhood at the same time that I have crossed Old River. When I would find Old River

1311



1312 full, I would cross the New River in quite a number of different places. I used to be crossing right below the old Anderson Ferry; probably half a mile above the bridge—the wagon bridge, east of the railroad bridge, and higher up the river than the railroad bridge.

Q—Did you cross it at any point lower down after Old River left it?

A—Yes, sir; there used to be a crossing there at the railroad bridge also, and I also crossed it at the head of Old River.

Q—During those years, as far as you can judge and estimate, what proportion of the water of Kern River  
1313 did Old River carry, according to your judgment and observation during those years? I mean when the river was running flush?

A—I always thought that Old River carried more water than New River; it always looked to me as if the current was stronger. I have seen Old River every year since I have been here.

Q—Has the volume of Old River decreased—the volume of water—since 1877?

A—Up to the time the Old River head-gate was put in it was about the same every year, as far as I could see. It has decreased since the head-gate was put in,  
1314 the Old River head-gate. The Stine Canal head-gate is what I refer to. I cannot say when that was put in. It seems to me that it was in the fall of 1874; I won't be positive, though.

Q—Whatever time it was, which head-gate do you mean—the one that was put in at the head of the Stine Canal or the other?

A—The head of Old River itself, across the river. I thought it got some lower after that was put in. I have crossed at Anderson's crossing after the bridge was built.

Q—How high have you seen the water at the cross-  
1315 ing there, after the bridge was built? How high upon the bridge at Old River?

A—Well, I remember of seeing it pretty high. I have never seen it, but probably within 2 or 3 feet of the bridge, of the top of the bridge.

Cross-examination of

J. NIEDERAUR.

By Mr. HOUGHTON—Work was commenced on the Baker & Noble Ditch in 1871, to the best of my recol-



- 1316 lection. It was intended for either twelve or sixteen feet wide when it was first commenced; I won't be positive which. It was, in fact, constructed nothing less than twelve feet wide. It could not have got very far from the river in 1871. It was completed that winter at the full size of the ditch to our line. Up to the irrigating season of 1872, it was completed to our line, and also to Noble's line; that would be about a mile. The next year it was completed to Mr. Cochran's; that would be probably two miles and a half additional. I cannot say how long the ditch is now. I know nothing further than what I was interested in at the time at
- 1317 Mr. Cochran's. It was finished to Mr. Cochran's, and Mr. Cochran put in a crop in 1873. In 1872 probably 140 acres were irrigated from that ditch. In 1873 we added as much more ourselves, Captain Noble about the same, and Mr. Cochran had in quite a crop; how much I could not say. In 1873 I had 80 acres; in 1872 only 40 acres. We had no crop in 1874; we had rented it to another party. Our tenants had about 120 acres in, in 1874, I think. I had sold out in 1875. I have been there every year; that is, I have crossed the river every year since. I have not had any interest in that ditch since 1875. I think I had an interest in the
- 1318 Gates ditch after 1875, but I won't be positive. I didn't irrigate any lands from the Gates ditch other than those we have been speaking about. I irrigated my lands partly from each ditch. The Gates ditch, when we first constructed it, was narrow—I should judge about 6 feet—and then we widened it to about 12 feet. The Gates ditch was constructed about a mile and a half the first year, and in 1873, the second year, about one mile additional. I cannot say how long it is now. There was not a great deal of land irrigated through that ditch in 1872; I can.
- 1319 not say how much. There was not a great deal, because we were all new beginners at the time and put in small crops. In 1873 I think there were two or three hundred acres, but I cannot say positively. I don't know how much was irrigated through the Gates ditch in 1874. I never kept any account. The acreage had not increased much in 1874. I don't think it had increased, may be, one-half. I was not there in 1875. The Anderson ditch, I should judge, was about three feet deep. We used to run in about two feet deep. I don't know that the water was all used to irrigate. What was not used went to Mr. Cochran. He always



- 1320 complained that the water all sunk, and that he could not get any water for his place. I should judge one foot of water ran in that gate. I was last at the head of Old River when they were building the head-gate. I don't recollect the year. I have not been right at the head there since. There was water running in that Old River when we put that head-gate in. We leveed it off and kept the water out when we were building the head-gate. I don't know how much water was running in there before the levee was constructed. I have no interest now in the Gates canal, nor in the Anderson. A large amount of water would flow in the Old River, until this head-gate was put in there, at time of high water.

Q—At the time of the flood?

A—At the time of high water, along in June; as soon as the high water commenced. When it would raise we would not be able to ford Old River. My recollection is that gate was put in, 1874 or 1875 some time.

RANDALL MEACHAM,

- 1322 A witness for the defendant, being duly sworn, testified:

To Mr. HAGGIN—I reside on New River, about nine miles below this town, in this county. I came to this country first in the spring of 1872. I have had two residences; the residence I have now and which I had in 1874 and 1875. When I first came here in 1872, in the first part of the season, I lived here in Bakersfield until the fall, then I resided on New River, on Section 12, Township 30, Range 26. In going from Bakersfield to my place in Section 12 I crossed Old River.

- 1323 Q—What was the general or usual condition of Old River as to water?

A—There was plenty of water in the river. It was not fordable at all times, that is, at the Anderson place; in high water we used to have to cross at Stine's Crossing. I am speaking of the year 1873. Anderson's place is where the bridge is. There was a strong current there at that time. At other times it would come up to the top of the banks. In 1874 the crossing was about the same. In 1874 there was no difference in the crossing. When the bridge was constructed, we had a good crossing after the bridge was con-



1324 structed, in 1875, the river continued the same. I think the amount of water was about the same after the bridge was constructed. I know that there was a head-gate made at the head of Old River by the company; but I never went there to examine it, and could not give any description of it. It was only by hearsay that I knew of the head-gate there.

Q—Did you ever notice any difference in the different years in the amount of water flowing in Old River?

A—Yes, sir; there was a difference in some years—the amount of water was greater than in others.

Q—Those years which you are speaking of, how was it in 1877?

1325 A—I don't know exactly how it was, but I know this much, that there was always certain seasons of the year that we had to cross at Stine's Crossing, until the bridge was made. I don't know what year the bridge was made; I don't recollect that. We would have to cross at Stine's Crossing, because the river was wider there, and it was not considered a safe crossing at the Anderson place, owing to the volume of water. We had to take our supplies of provision from Bakersfield, and we used to have to calculate to do it when the river was low, because we had our flour to pack, and  
1326 groceries, and we depended on borrowing from our neighbors when we didn't carry our provisions in low water.

Q—After crossing Old River, going towards Sec. 12, did you in those early days, in 1872, '73 and '74, also come across any other water?

A—Yes, sir; we had difficulty crossing at what was called Buena Vista Slough down there. The river was tapped, and it ran into Buena Vista Slough, and it was very difficult crossing up this side of the James Ranch. I think the James Ranch is on Sec. 7, but I don't  
1327 know; it is on the east side of Sec. 12, where my place is, in the same Township and Range. The James Ranch is on the west side of Old River.

Q—Then it is between your place and Old River?

A—Yes, sir. It was between my place where I lived on the south side of New River; but not where I reside now.

Q—When you lived on Section 12?

A—Yes, sir.

Q—What were you saying about the Buena Vista Slough at that time?

A—There was always an abundance of water there



- 1328 in Buena Vista Slough. They tapped the river there, and it ran out into the slough, and the water used for irrigation was drawn out of that slough. And it was often the case that we had to cross that slough in coming from the Anderson Ranch down to the James Ranch, and if we had any sugar or salt, or anything in the bottom of the wagon, it had to be raised up, in order not to have it get wet, because it was considered a bad crossing. There was places where the water was spread out over a good deal of country there, and there was no proper grade to the banks, and it spread more in some places than in others. There were
- 1329 places where it didn't spread, and there were places where it would run over a good deal. I know Buena Vista Canal as it exists now, if you have reference to the canal taken out above the Buena Vista Slough. I know a portion of that. I know where the road crosses it. I have seen water in that canal lately. I crossed it to-day. There is not as much water in the canal now as there used to be in the slough. It does not run with the same rapidity, I do not think, as it used to in the slough. Those sloughs were a matter of convenience here, when the people were here with limited means. Those sloughs seemed to be the natural chan-
- 1330 nel of the river, and they seemed to be the courses where the water had run in times of a flood naturally. I am now speaking of the sloughs generally. In times of high water, these sloughs diverged from the river in different directions, and carried the surplus water when the river was out of its banks, and the water that was used for irrigating was drawn from these sloughs. These sloughs spread out over the country in places. There were no confined channels. In travelling around the country, we would find these sloughs very frequently. There are sloughs in this country on this river
- 1331 here, that have no names to them. They are numerous—lots of sloughs diverging from this river in a southwesterly direction. I cannot name them, because they have no names.

Q—Prior to 1875, could you generally find water in these sloughs?

A—I don't know what year the head-gates were put in, or the bridges were made; but it was a common occurrence to find water every season every year when the water was high, and find water in all of them until there were head-gates put in there and confined the water.



1332 Q—Do you find that same state of affairs now?

A—No, sir.

Q—To what do you ascribe the difference?

A—To the confining of the waters, and to putting in head-gates and making levees; and, in fact, reclaiming the country as a general thing. The country, when I came here in 1872, was sickly. You might say, a sickly, isolated swamp. I say isolated, from the fact that there was but few people here for the scope of country that was here at that time that was vacant. By saying that it was swampy, I mean there was so much standing water in different places, scattering all over the country—  
1333 not all over the country, but in certain places there was a vast amount of standing water that made the people sickly, and that state of affairs does not exist now. We have good roads now in almost whatever direction we travel.

Q—Do you think that the fact that the water was taken from the river into canals has had any tendency to change that?

A—That has changed the condition of the country entirely. The construction of canals in this place prevents the spreading of water over this country. I know the Meacham Canal; the Meacham and Wilson Canal  
1334 you have reference to, I suppose; that is located on New River. The mouth of the canal on Sec. 1, Township 30 south, Range 26 east; I know where the Pioneer Bridge is. The head of that canal is located several rods above that bridge, on the south bank of the river. We stuck up a notice there on the 15th of April, 1873; a notice specifying the amount of water to be claimed by Zion Wilson and myself. That was preliminary to the work. I have not that notice. I saw that notice posted there right at the point where the water was taken out. I presume it has blown down  
1335 like all the other notices stuck up at the head of those ditches. It is a general thing that they are posted on a piece of board, and they may remain for some weeks, and if there comes a rain or storm it is hard to tell what becomes of them. The general history of that is, I guess, that they go down stream or somewhere else. After that notice was posted, the work was commenced, and continued until the title to the water was acquired by appropriation. We shoveled out there at the mouth of the ditch where we took it out of the river. I don't know the depth, but I think it was some 4 or 5 feet deep that we shoveled out the bank, and 12 feet wide.



- 1336 We call it a twelve-foot ditch. It was twelve feet wide, and I don't remember the depth. It was very deep at the head-gate, but it tapered cut as we got away from the river. I won't say as to the depth, the ditch got more shallow. From the time that we began that work, there was no let up to the work until what we considered the title to the water was secured. I considered that the title to the water was acquired by appropriation. I didn't work on the ditch, I don't think, over half a mile, but my partner continued it on about a mile and a half. At the end of that mile and a half was the place where he irrigated. He made a
- 1337 garden that year and used the water. The water was turned into our ditch, I think, about 15 or 20 days after we had shoveled that cut; we turned it in to see how it would run, before we threw it into the dam there. When we found we were low enough, then we threw it in a dam there to keep it back until we had gone down with the cut. We turned in a little water there before we had completed the ditch; it was first used after we had made a cut; I cannot say the date, but after we had made the ditch down to his place, where he resides—Zion Wilson's place. Then he
- 1338 turned in the water and it was left to run there, and he used the water that year, but it might have been turned in before he got the ditch completed down there to his place. That water that I turned in did not go back to the river again, that I know of. That notice that I posted was recorded.

Q—Do you remember the contents of that notice?

- A—No, sir; I cannot say; that was nine years ago, and I can't say. Well, the main part of the notice, of course, I could not describe or give it word for word; but it claims 12 feet of water, and I think it was under a 4-inch pressure; I won't be certain about it, but certainly the records must be correct. Zion Wilson's and
- 1339 my name were signed to the notice that I saw posted. I don't remember any other data or contents of that notice.

Q—Would you know the notice again if you saw it, or saw a copy of it?

A—I don't know; I might; I won't be certain, but we claimed a ditch 12 feet wide there, under a 4-inch pressure, and which was described for irrigating purposes, such as lands. I don't know, I have forgotten now what lands it was described to irrigate. Zion Wilson wrote the notice; it was recorded, to my knowl-



- 1340 edge; I paid for my part of it; I did not record it myself. Zion Wilson posted it; I was not with him when he posted it, but I saw the notice, which I know was posted. I don't know the contents of that notice now. We claimed, if I recollect right, we claimed 12 feet of water under a 4-inch pressure. I don't remember the point of diversion which was stated in that notice; I recollect that it described the course of the ditch and the land it was calculated to irrigate; it gave as the course of the ditch in the notice, in a southwesterly direction, if I remember right. As the point where we would take the water out, it described a certain point  
 1341 on Section 1, but I don't recollect what it was; I think it was the east line of Section 1, as near as I can recollect.

Mr. HAGGIN—I will show this recorded copy of the notice to the witness.

Plaintiffs object to its being shown to the witness, on the ground that the witness appears to know its contents, and that it was not made by himself.

- Mr. HAGGIN—I propose to show this to the witness to identify it as a copy of the notice which was posted, not to refresh his memory; to show that this record is a copy of that which was posted there, and not to  
 1342 know whether the witness remembers the particular words, or if the witness stated what was in it; but it is to identify this record.

[The objection is overruled; the plaintiffs except. The record is shown to the witness].

Mr. HAGGIN. Q—Will you look at that and see if that is a copy of the notice you saw posted?

A—Yes, sir; I think that is correct. I don't know of but one notice recorded of the Meacham ditch. I don't think there ever was but one. That is a copy of the one I saw posted, as near as I can recollect.

- Mr. HAGGIN—We offer this copy of the record in  
 1343 evidence.

Mr. HOUGHTON—We make the preliminary objection thrt they have not accounted for the loss of the original.

The COURT. Q—Where is Mr. Wilson?

A—He is dead.

The COURT—Let it be read.

[Plaintiffs except].

Mr. HOUGHTON—Then we make the same objection that we have made to all of these notices; and we make the further objection to this notice, that it fails to



1344 comply with the statute, that it does not state the amount of water claimed in inches, measured under a 4-inch pressure; nor does it state the point at which the water will be taken or diverted.

The COURT—The same ruling.  
[Plaintiffs except].

The record is then read in evidence, and is in the words and figures following, to wit:

“ COPY OF NOTICE OF WATER CLAIM.

1345 “ Notice of water claim made April 15th, 1873. The undersigned claim at this point 1,500 inches of the water of Kern River, or the amount that may be conveyed in a canal 12 feet wide by one foot deep, having a fall of three feet per mile. This water is claimed for the purpose of irrigating lands lying in T. 30 south of Range 26 east.

“ ZION WILSON,  
“ R. MEACHAM.

“ A full, true and correct copy of the original, recorded at the request of Walter James, April 24th, 1873, at ten o'clock A.M.

1346

“ A. A. BERMUDEZ,  
“ Recorder.

“ (Recorded on Page 1 of the Book of Water Rights of Kern County).”

The WITNESS—In the spring of 1873 the Meacham Ditch had been constructed down to Mr. Wilson's place. Water has been used every year from that ditch to my knowledge. The ditch has not been changed at the head of it in any respect. It is the same now as when first constructed. The water has been used every year for irrigating purposes, to irrigate land on Sec. 12 and Sec. 2, Township 30, Range 26.

1347

Cross-examination of

RANDALL MEACHAM.

By Mr. HOUGHTON—I don't know exactly how much land has been irrigated in Section 2 from this ditch. I have irrigated, I presume, 20 or 30 acres from that ditch. I don't know how much land Mr. Wilson had been irrigating on Section 2. He owned 80 acres that



- 1348 I am sure of on that section, may be more. I reside on New River on Section 2, on the opposite side of the river. I resided at the time the ditch was taken out on Section 12, that corners with Section 2. It was some two or three years after the ditch was made that I left Section 12. I have been there since and have crossed the river frequently. I have been on Section 12 since I sold out, when I left there. I have no interest in that ditch now. I reside now on the west half of the northwest quarter of Section 2. I think I have lived on the place that I have got now for about seven years. It may not be over six. That would
- 1349 have been in 1874 or '75 that I went there; I could not say the exact date. I don't know when that county bridge was built.

Q—How long after you moved down there?

A—It was some time; I can't tell you the date. I know we thought it was a Godsend to get the bridge here, because we had to pack our flour in when the water in both rivers was low, and when the rivers were high we had to cross at the ferry, and that was an expense; but as to dates I am the poorest hand in the world to recollect them. But I brought the man down there, that engineered that place where Old River bridge was made.

- 1350 Q—For how long a season was it that you could not ford New River at the ford?

A—It might have been a couple of months that we could not ford there and had to go to the ferry.

Q—Could not ford where?

- A—New River or Old River either. I have crossed both of them a hundred, I don't know but a thousand times. When I forded New River I used to cross about that Pioneer Bridge there pretty near; it is something west of the gate that goes into the Bellevue Ranch some distance above the bridge. The river
- 1351 is a pretty good width there; it may be a couple of hundred yards; it would depend on the amount of snow that was in the mountains. The snow don't always run down regularly; some years it comes down all in a lump and others it hangs back.

C. CHRISTIANSON,

A witness for the defendant, being duly sworn, testified:

To Mr. HAGGIN—I reside on Sec. 14, Township



- 1352 30, Range 26, on Kern Island. I have resided in this county since the 15th of October, 1871. When I first came here I resided at Bakersfield, and remained here until the spring of 1874, at which time I first went to reside on Sec. 14. I am a farmer. I have farmed on Section 14, getting water from the Meacham Irrigating Canal; that gets its water from New River. I own one-fourth interest in the Meacham Irrigating Canal, and Mr. Dempsey owns one-fourth. That is not a partnership. It is a quarter interest to each of us in the entire ditch, and Mr. McQuirt had a sixth, and I think he conveyed his to the widow Gorman, and she now owns one-fourth,
- 1353 and Mr. King and Fawcett together own the other quarter. The ditch gets its water out of New River. I have used that water since 1874, when I put in the first crop. I knew that ditch in the fall of 1873 first, when I went down there to look at the land. I bought an interest in it in the spring of 1874, and went up to the head of the ditch when I was there in the fall of 1873. The size of the ditch then was twelve feet at the head. Right at the head there it is, I think, five feet deep, and as it goes down in the direction of the willows it grows shallow. That ditch will carry twelve feet of water—twelve feet on the bottom—and will
- 1354 carry water there three feet deep clear through it. From 1874 up to the present time I have continued to use the water of that ditch for irrigating, whenever there was water to be got from the river. In the irrigating time I have used it for irrigating; when there was very little flow, if I could get a little for stock; it has been running a little. Others than myself have also used it in irrigating lands. That ditch is not any larger at the head than when I first knew it; it may be a little deeper. I don't think it takes any more water from the river now than when I first knew it. When I
- 1355 moved on to that place I had to cross Old River; I had to ford it. I forded it when I could at the Anderson crossing. When I could not ford there, I had to go to the Stine crossing. I have been on the ranch there for a week that I dare not undertake to ford it; not with a two-horse team. I might have forded it with a horse, but not with a team. That was in 1874 and '75. I don't know so much about it in 1876, for I was not on the ranch. Then I was working out at my trade, carpenter; also in 1877. I noticed when I crossed it once in 1877, away below there, there was very much water in it; but I didn't cross it but very seldom in



- 1356 those two years. The bridge across Old River now is right at the same point where we used to cross, called the Anderson crossing. I don't think the river is any wider there now than it used to be. I can't see any difference in it. In the spring of 1874, in crossing Old River to go to my place on Sec. 14, I also crossed Buena Vista Slough. In going to Sec. 14 we generally crossed a little below where the home ranch is now—the Belle View Ranch. On the other side, a little south of the Belle View Ranch, there was a crossing there. I think the crossing was on Sec. 19, I am not sure; there were places there that the water was
- 1357 spread out over the country considerably, and I have crossed there when the water has gone into the wagon bed. I am now speaking of Buena Vista Slough. I know where Buena Vista Canal is with reference to this slough that I have been speaking of; it runs along east of this slough, clear down to the end, I think. In places the canal and slough are not over a hundred yards apart, and in other places they are a quarter of mile or more. The canal follows the general direction of the slough. I know when the canal was constructed. I worked on it all the way. I could not state the year, but I worked on it. I put the drops in
- 1358 the canal. I have seen water in that canal.

Q—Can you give me any idea of the difference, if any, between the water which you formerly saw in the slough and the water which you now see generally in the canal? That is, their capacity for carrying water, or the water which is generally run in them, or was?

A—My opinion now is that there was a great deal more water running in the slough than what there is in the canal now, or ever has run in the canal since it was built. No water runs in that slough now that I speak of; no water has run in that slough since the canal was constructed.

- 1359 Q—Do you know anything about Kern River above Old River?

A—Yes, sir; I do some.

Q—Can you form or give me your impression, your idea, of what the relative proportion of the water in Kern River above Old River—and that in Old River—or in other words, what portion of the water Old River took from Kern River in those days, say when you first knew it, in 1873, '74 and '75?

A—In the spring of 1873, when I lived at the ferry and had charge of the ferry, which was a little above



1360 the mouth of Old River, at an ordinary stage of the river, I should consider that there was as much going down in Old River as there was in New River, until they put in that head-gate—the first head-gate. After that was put in—they didn't complete it quite, for the water came in and drove them out; but there was a sand-bar then washed in there, in front, and after that sand-bar had washed into the mouth of the Old River, there was not so much water went down quite, as there was before, until that was removed again. To the best of my knowledge, the old head-gate was put in in the spring of 1873.

1361 Q—Prior to the putting in of that head-gate, you stated that in ordinary stages of water, as much went down Old River as went down New River?

A—I should judge so. And this head-gate caused the formation of a sand-bar at the mouth of Old River, at the head of Old River. A large sand-bar washed into the head of it. That bar was not removed until the water got very low. They had to use it for irrigation, and they had to go and remove it. The next year after that I didn't notice it so much. I left the ferry and went down on the ranch again. In crossing the bridge there at the Anderson place, I have seen the  
1362 Old River very full there. I should judge I have seen it within eight or ten inches of the stringers of the bridge. That was the summer after the bridge was put in. I know the new head-gate on Old River. I put that in myself in 1877, I believe. I cannot fix the year. I put several in that season. I think it was 1877.

Q—Prior to the putting in of that head-gate, you stated you had for several years seen the water in Old River. Did that head-gate have any effect upon the amount of water in Old River?

1363 A—Yes, sir.

Q—Did you see the water in Old River after that head-gate was put in?

A—I saw the water in Old River occasionally, which was turned in there I suppose from the head-gate. I have never seen as much water in the Old River after the head-gate was put in as I had before. The difference that gate makes is, that the gate stops off about all of the water, except they let it through.



1364 Cross-examination of

C. CHRISTIANSEN.

By Mr. HOUGHTON. Q—You spoke of a head-gate put there in 1873 which was not finished when the flood came?

A—It was not finished.

Q—What was the condition of that head-gate when you went there in 1877 to put in a second one?

A—The abutments on both ends were standing, and a few posts standing in the stream, and the floor. I  
 1365 put the second gate in, I think, in 1877. I also put in one in the Calloway in that same year, one in the James canal, one in the Anderson canal, and one in a small canal by the side of the Stine canal, I understood it was called the Castro, and one in the South Fork. Those were all put in in the same year. I own one-fourth interest in the Meacham ditch. I first commenced to irrigate from that canal in 1874. Mr. Meacham and myself constructed that ditch down to King's; but I am not sure that he got any water down there that year. In 1874 I had in about 40 acres under irrigation from the Meacham canal. I am not sure how  
 1366 many acres Mr. Meacham had in. He owned a hundred and sixty acres there. He didn't have it all in. In 1875 I irrigated from that canal about a hundred acres. In 1876 I guess about 125 or 130. In 1877 I guess about 200 or 250. In 1878 about 425 or 430. In 1879 about the same amount. In 1880 I irrigated about 550. I own 240 acres of land there. The balance of the land which I irrigate belongs to Mr. Haggin. There is a piece of land lying by the side of mine which I have under cultivation belonging to Mr. Haggin. I am leasing now from Mr. Haggin. I irrigated 400 acres of land from the Meacham canal in  
 1367 1879. I got my water from the Meacham canal in 1879, and I do now. I drew water from the James canal at one time for a few days, that is all. I got all of the balance of water I had in 1879 from the Meacham ditch. My ditch empties into the James ditch, and I took it from there again. My ditch runs into the James about two miles and a half from the river. It is continued up to the crossing of the James, and it is continued down about two and a half miles further on the other side of the James. I am the President of the Company. Mr. L. M. King is the Secretary. That



1368 channel I said was 12 feet wide. It will carry about 12 feet wide by 3 feet deep.

Q—How much water did you run in the canal?

A—Well, I have never measured what waters we ran through.

Q—Isn't there a guage at the head of the canal?

A—Yes, sir.

Q—How much water is usually standing at the gauge?

A—We generally go up and take out the boards of the gauge what we require for irrigation, and whenever we get done with it we go to the river and shut it off.

Q—How much does that gauge indicate when you are running it in there?

A—The gauge will generally be open according to the pressure; from 10 inches to one foot or a foot and a half. I could tell pretty near how many acres the shareholders in the canal owned, but I cannot how many acres they have under cultivation. In my place all the land is under cultivation, and on the Widow Gorman's place it is all under cultivation. I own 240 acres. The Widow Gorman owns 300 acres; Mr. Dempsey owns 240 acres; Mr. Fawsett owns 160 acres; Mr. King, I think, owns 240 acres. The mouth of the head-gate at the Calloway is 60 feet. The mouth of the head-gate at South Fork is 25 feet. I mean the main head-gate of the Calloway. It is located a little west of the Railroad Bridge, at the north side of the river. The mouth of the James head-gate is 60 feet. I forget the width of the Anderson. The Castro, or Spanish Ditch, is 12 feet, I think. I don't know where the waters of Old River empty into Kern Lake. I never was there, at Kern Lake. I have been on the slough about 3 miles from the lake, and that is as far as I have been. The water has run down that slough. The waters of Buena Vista Slough running down there in 1873 that I have spoken of emptied into Buena Vista Lake. They run from Kern River. That is a branch of Kern River. Buena Vista Slough that I speak of near Buena Vista Canal comes from Kern River.

1371

Q—Is that a channel that carries water when the water is low, or only in high water?

A—They had dug a head-gate out there and put it in and made a ditch of it, and used it for a ditch when I came to this country, and claimed it as a ditch. I have not been there, at the head of Old River, since I put in that head-gate.



1372 Re-direct examination of

C. CHRISTIANSON.

To Mr. HAGGIN—I cannot be positive about the width of the head-gate of the Calloway. I put that head-gate in in the fall of 1877; I am certain. If I remember right, I started to put the head-gate of the James in in Sept., 1877, and I finished that and then moved to the Calloway.

1373

J. C. COCHRAN,

a witness for the defendant, being duly sworn, testified:

1374

To Mr. GARBER—I reside at Visalia; my occupation is U. S. Signal Observer. The duties of that office consist in taking meteorological observations and keeping the records of them; I keep those records. I hold my office by enlistment. I am in the employ of the U. S. Government, under the laws, and my duty is to make observations, and also to make records of them, and I am the keeper of those records. Those observations consist of observations of temperature, the barometer, rainfall, direction of the wind, clouds, humidity, etc. I did not furnish a copy of these records to Mr. Schuyler some time ago. I have brought those records with me, and I have them here.

[Produces them.]

Mr. McALLISTER—We would like to ask some preliminary questions.

Q—Where were those observations taken?

A—At Visalia; I cannot say exactly how far it is from here; I understand it is about 80 miles. Those observations were taken, covering the time since July 1st, 1877.

1375

Q—Is there any one else at that office where these observations are taken, beside yourself?

A—There has been; the observations are not all taken by myself. I began to take observations there personally, I think it was January 27th, 1878; I have only been connected with that Visalia office since January 27th, 1878; previous to that I was at San Francisco. On January 27th I came to Visalia and have been there ever since, and from that time I commenced to take the observations myself. Occasionally an observation was taken by an



- 1376 assistant; I did not have a regular assistant with me. There is no especial building at Visalia devoted to the purpose of an observatory. I am simply stationed there for the purpose of taking these observations. I take the observations seven times a day; make a note of them at the time. Besides the temperature, I note the direction of the wind and the reading of the barometer. I take the direction of the wind seven times a day. The times for taking these observations each day are, first at 6, or the first one at 6:11 in the morning; the next at 8:11 A.M.; the next at 12:11 P.M.; the next at 2 P.M.; the next at 8:11 P.M., and the next at 9 P.M.
- 1377 I take the temperature, the direction of the wind, the reading of the barometer, the amount of rainfall, if any, clouds, the kind and direction they are moving in; I keep a record of that in a book.

Q—Is that book the original record?

- A—No, sir; I have not the original record. The original record is a small book that the readings are taken in, in lead pencil. That book is forwarded each month to Washington. I retain a copy of it. What I have with me now are copies of that book. Since January 27th, 1878, some of these observations have been taken by my assistant. His name is Geo. W. Stuart. He is now in the Sandwich Islands.
- 1378

Mr. McALLISTER. Q—What proportion of those observations did you take, and what proportion did he take?

A—He took, I suppose, one out of one hundred.

Mr. GARBET—This is the copy of that you kept there during the dates which they contain?

A—Yes, sir.

- Q—By your instructions, you kept this duplicate and sent one on to the department, is that so? These under your instructions and the rules of your office, you kept here as a record of your office?
- 1379

A—Yes, sir.

Q—When did you commence personally to take these observations?

A—I think it was December 27th, 1878. I have no regular authorized assistant.

Q—But there is some one who is now in the Sandwich Islands who has taken some of these observations?

A—Yes, sir.

Q—Do you know which?



1380 A—I can tell about which by examining them. There are very few of them that he took. I think I can tell which they are.

Q—How did he take them. In your presence, by your direction?

A—No, sir; he took them when I was not there. He kept a copy of them and reported them to me, and I at once put them into my record.

Q—Does that contain all the year 1879? [Showing bundle of papers.]

A—It does not.

1381 Q—Where is the first one there of 1879? [The witness selects a paper.]

Mr. GARBNER—This is marked on the back, “Form 22, Station, Visalia, Cal. Month Jan. 1879.”

Q—Taking that, what proportion, if any of these observations there recorded were made by yourself individually?

A—All of them. I can testify as to the correctness of the statements of that paper, which I hold in my hand, as being a correct statement of the actual results of my observations. These reports were made by myself. I made them at or about the time of the observations. I can testify that they are absolutely correct.

1382 Mr. GARBNER—I now offer that in evidence.

Mr. McALLISTER. Q—Is this writing yours?

A—Yes, sir. I send the original book forward to Washington once a month. I make this copy at the end of the month. This is an original copy, and a duplicate of this paper is forwarded to Washington; a copy of the paper is forwarded to Washington on the first of each month succeeding the time at which the observations were taken. Directly after this is forwarded there are some reports to make up from this original record. As soon as I get through making my report I forward the original record.

1383 Q—Then, I understand, a report like this goes to Washington and also the original record?

A—Yes, sir.

Q—Then this memorandum that this is a copy of is made up at the end of each month?

A—To the end of each month. This is in my handwriting. I took this from the original record-book.

Q—You could not have made this copy without having the original before you?

A—No, sir. I could get it out from some of my other records, but it would be a great deal of trouble.



1384 Q—This was made by you from a memorandum which you kept at the time of each observation, was it?

A—From the original reading of the instrument.

Q—Daily memoranda. You copied it down from a paper as you took the readings and put it on paper?

A—Yes, sir.

Q—That original you are required to send to Washington?

A—Yes, sir.

Q—But before you send it there you have to copy it?

1385 A—Yes, sir.

Q—And send a duplicate of this copy on to Washington?

A—Yes, sir,

Q—And this was made when you knew absolutely that it was correct; that it was a correct copy of the memorandum you made at the time?

A—Yes, sir.

Mr. McALLISTER. Q—You kept the record, as I understand you, in a book?

A—Yes, sir.

1386 Q—At the end of the month you copied this paper off from the records?

A—Yes, sir.

Q—You did not make this paper from the daily memoranda from which you made the record?

A—I did.

Q—Well, how is it then? Which did you take it from?

A—The daily memorandum is the record; and at the end of the month I made this copy from my record book.

Mr. GARBER—I offer this in evidence.

1387 Mr. McALLISTER—We object to this, first, on the ground that it is the intent of the memorandum to show the condition of the temperature, the atmosphere, moisture and rainfall at Kern Lake and Buena Vista Lake. I understand that those lakes are over ninety miles from Visalia; they are much farther than Bakersfield. We object to the observations made at Visalia at any time, upon which to base calculations of the condition of the atmosphere or the humidity of the atmosphere, or the amount of rainfall, or any of the points expressed in this report, at Kern or Buena Vista Lake. That is the first objection. The second



1388 objection is, that the original record is not produced and not accounted for, and this is a mere copy from that record as to this particular observation; as I understand the witness, this is all made by himself.

The WITNESS—Yes, sir.

Mr. McALLISTER—But the table on which the calculations of Col. Mendell were made, embrace a period of time during which, as I understand the witness, his assistant made some of the observations; and therefore we shall object to showing a part of the record upon which Col. Mendell made his calculations; unless the whole is shown the calculation entirely falls.

1389 Mr. GARBER—I am going to show the whole.

Mr. McALLISTER—When you attempt to show the whole, according to the witness, it will appear that this gentleman in the Sandwich Islands, the assistant, made some of those observations during his absence. That is my ground of objection; that, according to his testimony, the data upon which Col. Mendell based his calculations must embrace the action of the assistant, he being absent when the observations were made by that assistant. On that ground we object to this statement.

[The objections are overruled; plaintiffs except].

1390 Mr. GARBER—I suppose I will have to take time to read this, because it is an original, and cannot be kept here. Perhaps counsel will be willing to agree, inasmuch as this gentleman cannot leave them here to accept his certificates of them.

Mr. McALLISTER—Has he got a copy of this?

Mr. GARBER—No. These are the original archives of his office.

Mr. McALLISTER—How many do you propose to offer?

Mr. GARBER—I am going to offer all of them within this period.

1391 Mr. McALLISTER—You had some paper that Col. Mendell used.

Mr. GARBER—That paper is here, containing certain deductions from his paper, if you are willing to leave that in place of these.

Mr. McALLISTER—Isn't that a copy of these?

Mr. GARBER—I understand that paper is not a copy of these, the one that Col. Mendell had, or Mr. Schuyler?

The WITNESS—The one that he has now is a copy of these.



1392 Mr. GARBER—Let us see that. If that is so, that will save us the trouble.

Mr. McALLISTER. Q—Is this record kept under a statute by you, Mr. Cochran?

A—Well, I don't know whether it is kept under a statute or not; I suppose it is, or the service would not be in existence.

Mr. GARBER—I don't understand how this can be a copy of all these notes [referring to a paper used by Col. Mendell].

The WITNESS—It is simply a summary from them.

1393 Mr. GARBER. This purports to be a summary of the contents giving, instead of each day, each month.

The WITNESS. Each month. A gentleman named Haynes made this out. Mr. Schuyler and I compared them afterwards.

Mr. McALLISTER. Q—When did you compare this, or did you compare it with these present documents?

A—Yesterday; and the corrections were made yesterday.

The COURT. It would expedite matters very much if counsel could agree upon that statement, subject to the exceptions already stated by Mr. McAllister.

1394 Mr. McALLISTER. If this gentleman can have certified copies made under his certificate, that will be entirely satisfactory.

Mr. HOUGHTON. And offer them in evidence certified to by him.

Mr. GARBER. That is what I propose. And, instead of reading these now, we will produce in the place of them certified copies, certified to by Mr. Cochran, under his official signature.

Mr. McALLISTER. The same objection to be made to those certified copies as if these papers were here.

Mr. GARBER. Of Course.

1395 Mr. FLOURNOY. The copies to be treated as the original.

Mr. McALLISTER. As these originals.

Mr. GARBER. As these originals with the same effect, of course.

The defendant offers in evidence the paper endorsed "Form 22. Monthly Mean Report. Station, Visalia, Cal. Month, Jan., 1879."

The report is read in evidence, and is in the words and figures following, to wit:

[Here insert the same.]



1396 Mr. GARBER. Now, then, will you look at this one, which is marked the same as the other, except that it is for the month of February, 1879, and state what portion of these observations were made by yourself individually?

A—All of them. This is the record kept in my office for that month; the official record, kept in the same manner as the one for January.

Mr. GARBER. I now offer in evidence the report which is endorsed "Form 22 Monthly Mean Report. Station, Visalia, Cal. Month, February, 1879."

1397 Mr. McALLISTER. We make the same objection to the record of Feb., 1879, that we made to that for January, 1879.

The objection is overruled; plaintiffs except.

The report is read in evidence, and is in the words and figures following, to wit:

[Here insert the same.]

[The witness is shown the Report for the month of March, 1879.]

1398 The WITNESS. All of the entries in that were made by myself individually. That is also a record kept in the same manner as the other.

Mr. McALLISTER. We make the same objection to this document of March, 1879, that we made to the document of January, 1879.

Same ruling and exception.

The report is read in evidence, and is in the words and figures following, to wit:

[Here insert the same.]

[The witness is next handed the report for April, 1879.]

1399 The WITNESS—All of that report was made by me individually. That is also the official record kept in my office in the same manner as the other.

Mr. GARBER—I offer that in evidence. It is marked "Form 22. Monthly Mean Report. Station, Visalia, Cal. Month, April, 1879."

Mr. McALLISTER—The same objections to the report of April that were made to that of January, 1879.

Same ruling. Exception.

The report is read in evidence, and is in the words and figures following:

[Here insert the same.]



1400 Mr. GARBER. Q—I hand you now that for May, 1879, and ask you the same questions as to what portions of it was made by yourself individually of the observations.

A—There are a few of the observations in this month I didn't take. I could scarcely specify without seeing my record that I have. In Visalia there is a record that I kept of absences and observations that are taken by other parties.

Q—Can you approximate the number?

1401 A—I think it includes from the 19th to the 24th inclusive. All observations taken in those days of May, and the balance of them, I think I took myself. I would not be positive. They were taken in my office and the record kept there from the original book that was sent on to the Department at Washington. I will state that these observations taken by this Mr. Stuart were approved by the Department. They were approved as correct. That is one reason why this original book is forwarded to Washington; so that they can ascertain for themselves the correctness of the workings of the observation.

Mr. McALLISTER—Mr. Stuart was not a public officer at all?

1402 A—No, sir; he was a private person hired by me. He had no office under the Government, but I was authorized to employ him, and I did employ him under that authority, and he was Acting Observer. I took these from the record he made, the memorandum, and this is the record in the office.

Mr. GARBER—I now offer this record in evidence.

1403 Mr. McALLISTER—We object to the record on the same ground on which we objected to the record of January, 1879. And the further ground that the statute provides that these acts must be acts of a public officer; and that Mr. Stuart was not a public officer in any sense of the term.

Mr. GARBER—To that I answer that we do not go back to the act of the subordinate, but take this paper itself as the official record of the acts of this public officer.

Objection overruled. Plaintiffs except.

The record put in evidence is endorsed: "Form 22. Monthly Mean Report. Station, Visalia, Cal. Month, May, 1879." The report is read in evidence, and is in the words and figures following, to wit:

[Here insert the same.]



1404 [The report for the month of June is handed the witness.]

The WITNESS—I believe all of these were taken by myself.

Mr. McALLISTER. Q—I suppose they were all taken by yourself when you were there, and when you were away, by Mr. Stuart.

A—Yes, sir; I think so; although since Mr. Stuart has been away there have been some observations taken in 1880, and the present year by another gentleman—the gentleman who has got the office now. He is employed under the same terms exactly that Mr. Stuart was; he was instructed by myself, under my direction. I believe those of June, 1879, taken by myself.

Mr. HAGGIN—We offer this report of June, 1879, in evidence, endorsed “Monthly mean report, station, Visalia, Cal.; month June, 1879.”

Mr. McALLISTER—We make the same objection to this of June as we did to that of January, 1879.

Same ruling and exception on behalf of plaintiffs.

The report was then read in evidence, and is in the words and figures following, to wit:

1406 [Here insert the same.]

[The witness is handed the report of July, 1879.]

The WITNESS—I believe these were all taken by myself.

Mr. McALLISTER—I notice sometimes you say they were all taken by yourself, and then, “I believe they were all taken by myself.”

A—I will say that for all those months since 1879, that there were times one observation during the day, or two observations during the day, taken by Mr. Stuart; that is when I was away.

1407 Mr. HAGGIN—They were all records of your office?

A—They were all of the records of that office.

Mr. HAGGIN—We offer this in evidence, endorsed “Form 22. Monthly Mean Report. Station, Visalia, Cal. Month, July, 1879.”

Mr. McALLISTER—We will make the same objection to that that we did to the one of May, 1879, because it appears, as I understand the witness, that he did not take all of these himself.

The WITNESS—I did not say that I did not; I believe that I took them all; but I won't swear that I took them all.



1408 Mr. McALLISTER—We make the same objection to that that we did to the paper of May, 1879.

The same ruling and same exception by plaintiffs.

The WITNESS—To the best of my recollection, I took them all.

The record is read in evidence, and is in the words and figures following, to wit:

[Here insert the same.]

The witness is handed the report for August, 1879.

1409 Mr. HAGGIN. Q—What portion of that report, that record, was taken by yourself?

A—It is very hard to tell from this record whether I took all the observations or not; they are in my handwriting. I cannot tell by looking at them which observation I did not take; but from the best of my recollection I took them all.

Mr. McALLISTER—We make the same objection to the August report that we made to the report of May, 1879.

1410 Mr. HAGGIN—We offer this in evidence, endorsed, "Form 22. Monthly Mean Report, Station, Visalia, Cal. Month, August, 1879." The report is read in evidence and is in the words and figures following, to-wit:

[Here insert the same.]

The report for September, 1879, is handed the witness.

Q—What portion of that was taken by yourself and what by others?

A—I will make the same statement in regard to this one that I have to the previous ones.

1411 Mr. McALLISTER—We make the same objection to that of September, that we made to that of May, 1879.

Same ruling, same exception by plaintiffs.

Mr. HAGGIN—We offer this in evidence, marked "Form 22. Monthly Mean Report, Station, Visalia, Cal. Month, September, 1879."

The report was then read in evidence, and is in the words and figures, following, to-wit:

[Here insert the same.]

The report for October, 1879, is then handed to the witness.



1412 Q—What portion of that was made from your own observation?

A—I will make the same statement in regard to this, that I have to the previous ones; to the one of August, 1879—to the best of my recollection, that was taken by myself.

Mr. McALLISTER—We make the same objection to this paper of October, 1879, that we did to that for May, 1879.

Same ruling, same exception by plaintiffs.

Mr. HAGGIN—I offer in evidence this one endorsed,  
1413 Cal. Month, October, 1879.”

The report is read in evidence and is in the words and figures following, to wit:

[Here insert the same.]

The witness is handed the report for November, 1879.

1414 The WITNESS—There is one observation in this month that was not taken on time, and was not taken by myself that I remember, but it is an observation that was not used in ascertaining what we call the mean; it is what is called a telegraphic observation. I don't know the date here, from looking at it—somewhere in the neighborhood of the 20th of November. That observation was taken about 20 minutes late. It related to all the points that we observed—it was a regular observation. One observation is just like another. It was not taken by myself, but by Mr. Stuart.

Mr. McALLISTER—We make the same objection to the paper of November, 1879, that we did to the paper May, 1879.

The WITNESS—The balance of the observations during that day, I took myself.

1415 Same ruling, plaintiffs except.

Mr. HAGGIN—We offer this in evidence endorsed “Form 22. Monthly mean Report, Station, Visalia, Cal. Month November, 1879.”

The report is read in evidence, and is in the words and figures following:

[Here insert the same.]

[The witness is shown the monthly report for December, 1879.]

The WITNESS—I believe they were all taken by myself.



1416 Mr. HAGGIN—We offer this in evidence, endorsed  
 “Form 22. Monthly Mean Report. Station, Visalia, Cal.  
 Month December, 1879.”

Mr. McALLISTER—We make the same objection to  
 this on behalf of the plaintiff, as to that of May, 1879.

Objection overruled. Plaintiffs except. The report  
 is read in evidence, and is in the words and figures  
 following, to wit:

[Here insert the same.]

The witness is shown the report for January, 1880.

1417 The WITNESS—I believe I took all of those observa-  
 tions; to the best of my recollection, I took them all.

Mr. HAGGIN—We offer this in evidence: Endorsed,  
 “Form 22. Monthly Mean Report. Station, Visalia,  
 Cal. Month January, 1880.”

Mr. McALLISTER—The same objection to that as to  
 the paper of May, 1879.

Objection overruled; plaintiffs except.

The report is read in evidence, and is in the words  
 and figures following, to wit:

[Here insert the same.]

1418 [The witness is handed the report for February, 1880.]

The WITNESS—To the best of my recollection, I took  
 all of the observations noted in there.

Mr. HAGGIN—We offer this in evidence, endorsed  
 “Form 22. Monthly Mean Report. station, Visalia,  
 Cal. Month February, 1880.”

Mr. McALLISTER—The same objection to this paper  
 of February, 1880, as was made to the paper of May,  
 1879.

Objection overruled; plaintiffs except.

The report was then read in evidence, and is in the  
 words and figures following, to wit:

1419 [Here insert the same.]

The report of March, 1880, is handed to the witness.

The WITNESS—To the best of my recollection I took  
 them all.

Mr. HAGGIN—We offer this in evidence, endorsed  
 Form 22, Monthly Mean Report; Station, Visalia, Cal.;  
 month, March, 1880.

Mr. McALLISTER—We make the same objection to  
 this as to the report for May, 1879.

Objection overruled; plaintiffs except.



- 1420 The report is read in evidence, and is in the words and figures following, to-wit:  
[Here insert the same.]

The report for April, 1880, is handed to the witness.  
The WITNESS—To the best of my recollection I took all of these observations.

Mr. HAGGIN—We offer this in evidence, endorsed Form 22, Monthly Mean Report; Station, Visalia, Cal.; month, April, 1880.

- 1421 Mr. McALLISTER—The same objection to this that we made to May, 1879.

Objection overruled; plaintiffs except.

The report was then read in evidence, and is in the words and figures following, to-wit:

[Here insert the same.]

The witness is handed the report for May, 1880.

The WITNESS—I believe I took all of these observations; to the best of my recollection I took them all.

- 1422 Mr. HAGGIN—We offer this in evidence, endorsed Form 22, Monthly Mean Report; Station, Visalia, Cal.; month, May, 1880.

Mr. McALLISTER—The same objection to this paper of May, 1880, that we made to the paper for May, 1879.

Objection overruled; plaintiffs except.

The report is read in evidence, and is in the words and figures following, to-wit:

[Here insert the same.]

The report for June, 1880, was then handed to the witness.

- 1423 The WITNESS—To the best of my recollection I took all of these observations myself.

Mr. HAGGIN—We offer this in evidence, endorsed Form 22, Monthly Mean Report; Station, Visalia, Cal.; month, June, 1880.

Mr. McALLISTER—We make the same objection to this paper that we made to the report of May, 1879.

Objection overruled; plaintiffs except.

The report was then read in evidence, and is in the words and figures following, to-wit:

[Here insert the same.]



1424 The report for July, 1880, was then handed the witness.

The WITNESS—To the best of my recollection I took all of these observations myself.

Mr. HAGGIN—I offer this in evidence, endorsed “Form 22, Monthly Mean Report; Station, Visalia, Cal.; month, July, 1880.”

Mr. McALLISTER—We make the same objection to this report that we did to the report of May, 1879.

Objection overruled; plaintiffs except.

The report was then read in evidence, and is in the words and figures following, to-wit:

1425 [Here insert the same.]

The report for August, 1880, is handed the witness.

The WITNESS—To the best of my recollection I took all of those observations.

Mr. HAGGIN—We offer this in evidence, endorsed “Form 22, Monthly Mean Report; Station, Visalia, Cal.; month, August, 1880.”

Mr. McALLISTER—We make the same objection to this report that we made to the report of May, 1879.

Objection overruled; plaintiffs except.

1426 The report was then read in evidence, and is in the words and figures following, to-wit:

[Here insert the same.]

The report for September, 1880, is handed the witness.

Q—Will you look at this and tell what part is from your own observation?

1427 A—There were a few of those observations that were taken by Mr. J. H. Haynes, as far as I recollect; I don't exactly remember the observations or dates; I think Mr. Haynes made four or five observations out of 217 taken that month; not more than six; Mr. Haynes resides in Visalia; he is not employed in my office; he is a telegraph operator; he is not connected with my office; he is in my employ now acting as observer.

Mr. McALLISTER. Q—He was not then, was not in your employ then?

A—You might say he was in my employ, but he was not in my pay. He took some observations under my supervision, but I was not present.

Mr. McALLISTER—We make the same objection to this paper that we made to the report of May, 1879, and the



1428 further objection that Mr. Haynes was not a public officer, nor in the employ of the United States, nor in the employ of the witness Cochran.

Objection overruled; plaintiffs except.

Mr. HAGGIN—They form part of the records of your office?

A—They are the records.

Mr. HAGGIN—We offer in evidence this paper endorsed, "Form 22, Monthly Mean Report; Station, Visalia, Cal.; month, September, 1880."

The report was then read in evidence, and is in the words and figures following, to-wit:

1429 [Here insert the same.]

The witness is then shown the report for October, 1880.

Q—What portion of that was by yourself, from your own observation?

A—About the same as September; Mr. Haynes took some of them; about the same proportion as in September—six out of 217. He was under my instructions.

Q—And it forms a part of the record of your office?

1430 A—Yes, sir; it is the record.

Mr. MCALLISTER—It is a record of your office in the same way you have explained; that is, you sent the original record-book to Washington.

A—The original record-book goes to Washington.

Mr. HAGGIN—We offer this in evidence, endorsed "Form 22, Monthly Mean Report; Station, Visalia, Cal.; month, October, 1880."

Mr. MCALLISTER—We make the same objection to this report that we made to the report of September, 1880.

Objection overruled; plaintiffs except.

1431 The report was then read in evidence, and is in the words and figures following, to-wit:

[Here insert the same.]

The witness is shown the report for November, 1880.

The WITNESS—Mr. Haynes took about the same proportion of these that he did in November. This is the record of 210 observations; out of that he took about six; the balance were taken by myself; this is a record of my office.

Mr. HAGGIN—We offer this in evidence, endorsed



1432 "Form 22, Monthly Mean Report; Station, Visalia, Cal; month, November, 1880."

Mr. McALLISTER—We make the same objection to this report as we made to that of September, 1880.

Objection overruled; plaintiffs except.

The report is then read in evidence, and is in the words and figures following, to-wit:

[Here insert the same.]

The witness is shown the report of the month of December, 1880.

1433 Q—Will you look at that, and state what part of it is from your own observations?

A—About the same proportion. Mr. Haynes took some of the observations; he took some in each month after September, and including September, 1880; not more than five or six observations during each month; and the balance was taken by myself, and they form a record of my office.

Mr. HAGGIN—I offer in evidence this report, endorsed "Form 22, Monthly Mean Report; Station, Visalia, Cal.; month, December, 1880."

1434 Mr. McALLISTER—We make the same objection to this paper that we made to that of September, 1880.

Objection overruled: plaintiffs except.

The report is then read in evidence, and is in the words and figures following, to-wit:

[Here insert the same.]

Mr. HAGGIN—Mr. Cochran, are these reports all upon the same form? They are endorsed Form 22.

A—It is the same form; but some of the forms have been enlarged, and there is more complete data in them.

1435 Mr. HAGGIN—This is the one I meant—the paper which was presented to Col. Mendell the other day and is indorsed by Mr. Gearhart for identification. Will you explain how that table is made, and what that represents?

A—This table is made up from the footings of each of these columns—temperature and humidity column, as contained in this report.

Q—What do you mean by this "report?" State it so that the reporters may get down what you mean.

A—This form 22, running through those two years, January, 1879. The temperature forty-three and seven-



1436 tenths is taken from the footings of the mean daily temperature on form 22 divided by the number of days in the month. That estimate is at the foot of each table for each month.

Q—And this table, indorsed by Mr. Gearhart, is taken from that estimate, as given in these other tables?

A—Taken from these figures; these facts, and it correctly represents the mean calculations of each of these reports; I can explain it to you if you will allow me just a second. The readings are, temperature 80, 49.9 and 81.3. That is made up from the footings of these monthly reports. I have gone over those and

1437 compared them with the originals.

Q—Will you look at it in these reports for the month of September, 1879, and see what is the report of the wind for that month—the mean report?

A—Do you mean the average direction—the prevailing direction of the wind?

Q—No; the velocity of the wind.

A—The total velocity?

Q—Yes.

A—Seventeen hundred and seven miles.

1438 Q—How does that compare, from your observations generally, with the prevailing winds at other times of that year?

A—That was rather less than usual.

Q—You have had experience in observing the weather connected with your observation? Can you form any idea from your general observations of the weather of the different effects which the different causes have upon the humidity of the atmosphere? Take, for instance, the wind—whether it has any effect or not upon the humidity?

A—I think it has; yes, sir.

Q—You have sufficiently observed those things to form an opinion on that?

1439 A—I don't think it has any great effect on the humidity, but—

Q—(Interrupting.) Has it any effect on the amount of evaporation?

A—Yes, sir.

Q—What is the effect of the wind upon evaporation?

A—The effect of a brisk wind upon evaporation is simply by removing the saturated air from over the surface of the water, and allowing dry air to take its place. There is a greater evaporation in a wind than there is when the atmosphere is still; and all other



- 1440 things being equal, evaporation is greater according to the increased velocity of the wind. I have given observations of the rainfall in Visalia also; they are contained in these reports.

### Cross-Examination of

J. C. COCHRAN.

By Mr. McALLISTER. Q—Were you during the whole of the year 1879 at Visalia?

- 1441 A—No, sir; I was absent in May, 1879, and September, 1879; in May from the 19th to the 24th, inclusive; in September about nine or ten days. During my absence Mr. Stuart took the observations. I was not absent from Visalia during the year 1880; I have been outside of the city limits, of course.

Q—I mean so as to interfere with your observations?

A—No more than I spoke of in the latter part of 1880; the observations that were taken by Mr. Haynes; I was simply out of the city, sometimes taking a ride, sometimes out on business.

- 1442 Q—When you say that Mr. Haynes took some six observations, do you mean the observations of one day, or the observations of various days?

A—The observations of various days.

Q—What are the elements that should be considered in arriving at the calculations on evaporation, as to the particular amount of evaporation from a particular sheet of water?

A—The temperature and the direct velocity of the wind, and the dryness of the air, of course; nothing else, as I understand it.

- 1443 Q—Is the rainfall an element in arriving at the amount of evaporation from a particular sheet of water? Supposing you wanted to obtain how much evaporation has taken place during the year, do you take in the rainfall as an element?

A—As to increasing the body of water?

Q—Yes.

A—Yes, sir.

Q—Irrrespective of the proposition that the rainfall increases the volume of water in a particular receptacle, does the rainfall have any effect upon the evaporation going on?

A—Very little; it has a small effect.



1444 Mr. GABBER—Wouldn't it be only as affecting the humidity of the atmosphere?

A—Yes, sir; I think it would only as it affected the humidity, as it affected the dryness of the air, the capacity of the air for taking up moisture.

WILLIAM P. McCORD,

A witness for defendant, being duly sworn, testified as follows:

1445 I reside in Bakersfield, Kern County; have resided in this county since 1872; I know the McCord Ditch, or canal; it is located in Kern County, on the north side of Kern River, T. 29 S., R. 27 and 28 East; taken out in 28, and continued in a westerly direction.

Q—You can point it out on the map there, I suppose?

A—Yes, sir. (Consults Map I.) It commences in Section 17, Township 29 South, Range 28 East, and continues in a westerly direction across that township through the balance of that township, and through 29, Range 27 East.

1446 Q—Through the whole section?

A—Well, there is a small ditch now running up to the end of the township; the main canal out to the junction near Johnson's, in Township 29, Range 27, on Section 22, was built in 1875; it was began in March, 1875.

Q—Was there any notice of appropriation of the water by that canal posted?

A—Yes, sir; I posted it.

Q—When?

1447 A—I and my son, and a man named John Bird, that lives in Tulare County. It was posted at about six rods from the headgate, where the headgate is now; that is where one was posted; and another was posted where the water comes from Kern River to the Kern River Slough, back of the island, on Sec. 17, T. 29, R. 28.

Q—When did you last see the notice?

A—I saw a copy of the notice a few days ago recorded here.

Q—I mean one that was posted?

A—The one that was posted was there for several months on the trees that I posted them on; they stayed on the trees for several months after the posting, after we had got considerable of the ditch built; perhaps for



1448 a year they were still there; I don't know how long they did stay there; several months, anyhow; I don't know what has become of them. They were written on paper, and they became somewhat faded by standing there; you could not distinctly see what they were; they were signed by myself ~~and~~ W. P. McCord. A copy of the notice was recorded in the Recorder's Office on the 30th of March, 1875. The 20th of March was the time that they were dated; that was the time the filing was.

Q—Do you remember the substance of the notice that was posted?

1449 A—Well, on any particular point I don't know that I could give the exact words, but the substance of the notice was—

Q—(Int'g.) I mean the size of the ditch?

A—Yes, sir; the size of the ditch was five thousand inches of water under a four-inch pressure; the grade was a foot and seven-tenths to the mile; taken out on a grade two feet to the mile the first half mile, and from thence through a foot and seven-tenths.

Q—Did the notice say anything about the direction of the ditch, where it was to run?

1450 A—In a westerly direction; crossing through the said township in a westerly direction was the way that the notice was written. I had it recorded. Mr. Fillebrown wrote the notice.

Q—Would you recognize a copy of that notice you posted if you were to see it?

A—Yes, sir.

Mr. HOUGHTON. Q—Do you remember the size of the ditch that was stated in that notice?

A—Yes, sir.

Q—What was it?

A—The size of the ditch on the bottom, do you mean, or the number of inches of water?

Q—I mean the size of the ditch at the bottom.

1451 A—The size of the headgate was twenty-one feet; the size of the ditch, as stated in the notice, was perhaps eighteen feet on the bottom; that is my recollection.

Q—Do you remember the depth of the ditch, as stated in that notice?

A—Four feet, to the best of my recollection.

Q—Do you remember the grade stated in that notice?

A—I don't know that the grade was stated; if the grade was stated in the notice, it was a foot and seven-tenths; I don't remember certainly that it was stated in



- 1452 the notice; I know the notice was very short; I would not be positive that the grade was stated in the notice; I was simply telling the grade of the ditch; I didn't understand your question; my recollection is, that if the width of the ditch was stated in the notice, it was stated at eighteen or twenty feet; it might not have been stated in the notice; I know that that is what we figured on—Mr. Fillebrown and I when we figured on what amount of water and what size of ditch was necessary to carry it; I know that Fillebrown and I figured on eighteen feet on the bottom; we made the ditch about twenty feet, but I think the most of the way it
- 1453 was not very uniform; in some places it was a good deal more than twenty feet.

Q—What is your recollection about that?

A—About its being stated in the notice? The contents of the notice I would not be positive about; I recollect the notice was very short; I recollect some of the particular points that were stated; I recollect where it said the water was to be taken out of the river, and where it was to be taken out of the slough.

- Q—Well, if you don't remember whether it was stated in the notice what the width of the bridge would be, how could you tell, on being shown a copy, whether it
- 1454 was a copy of the notice which you had, if you don't remember anything about it?

A—Well, a correct copy there might be; I should recollect a copy of the notice; some particular points in it that I would recognize.

Q—You would remember the points, and not the words?

A—Not the words of the notice; I could not pretend to give the words of the notice.

Q—Then if you were shown a copy, or what purported to be a copy of that, now, you could not tell whether it was an exact copy or not?

- 1455 A—Whether it was an exact copy or not? I would not recollect for five or six years the exact wording of the notice; I would not pretend to.

(To Mr. FLOURNOY.) Mr. Fillebrown wrote the notice and I copied it; made two or three copies myself and had it recorded myself.

Mr. FLOURNOY—I understand you to say that you would recognize a copy of it, if you were to see it.

[A record book is shown to the witness.]

A—Yes, sir; I think so; I took a copy of it in my pocket and had a lawyer look it over.



1456 Mr. HOUGHTON—We make the same objection to showing this to the witness that we have to the former notices.

The COURT—The same ruling.

Plaintiffs except.

Mr. FLOURNOY. Q—Did you read that?

A—Yes, sir.

Q—Is that a copy of the notice?

A—That is undoubtedly a copy of the notice.

Mr. FLOURNOY—I now propose to read it in evidence.

1457 Mr. HOUGHTON—We make the same objection to this notice that we did to former notices, and the additional one, a preliminary objection, that they have not accounted for the original. We make the further objection that it does not appear in this notice by what means the parties intend to divert the water, nor the size of the flume, ditch, pipe or aqueduct through which he intends to divert it. And we make, of course, the further general objections that have been made to all of these notices. The objections here made are special objections to the form of this notice. We make the further objection that it is not admissible under the pleadings, for the reason that there is no allegation or claim in this answer of any appropriation or diversion of the water made by the company; and, therefore, it is irrelevant and immaterial.

1458

The COURT—The objections are overruled.

Plaintiffs except.

The notice was then read in evidence, and is in the words and figures following, to-wit:

“NOTICE.

1459 “The undersigned, hereby claims the water of Kern River to the amount of 5,000 inches, under a four inch pressure, to be taken from the channel of said Kern River, through a slough on the north side of said Kern River, on Sec. 12, T. 29, S. R. 28 east, Mount Diablo base and meridian, to be diverted from said slough on Sec. 18, same township and range, by means of a ditch of sufficient capacity to carry the above amount of water, and conveyed thence in a westerly direction; said water is claimed for irrigating land, watering stock, and domestic purposes.

“WILLIAM P. McCORD.

“March 20th, 1875.



- 1460 "A full, true, and correct copy of the original recorded March 30th, 1875, at 10 o'clock A. M.  
"F. W. CRAIG, Recorder."

Mr. FLOURNOY—This is from the book of water rights of Kern Co., page 32. At what time was this notice posted—that notice that you say was posted?

- 1461 The WITNESS—My recollection in regard to the posting of the notice was, that it was posted on the 20th, the day that it was written; on the 20th day of March, 1875; I had commenced surveying and done some work that way, and looking at a point before that time; after that time I spent my time, pretty much altogether, upon the ditch; I commenced with scrapers within sixty days, and worked continuously from that time until the ditch was finished to the point that I have already described, on Sec. 23; that is as far as the main big ditch was built. From where the water was taken out of the river to that point was about four and one-half miles; we filled it with water in the fall of 1875; we did not irrigate until 1876; we turned the water in more to see how it would run in the ditch; to see whether it was on a proper grade, and so on; the reason we did not irrigate was, because we could not get it to the land we wished to irrigate; we were trying to negotiate with the railroad company, to get it through the railroad bridge, to get it to the land we wished to irrigate; we first commenced to irrigate in the spring of 1876, and have used water continuously in that ditch every year since; in the years 1875 and 1876 there was a plentiful supply of water; plenty in the river for all of the crops that we had; in 1877 there was a scarcity of water; in 1878 we had barley and wheat crops, mostly wheat, along the ditch, and corn, some small crops of corn; I am below the Livermore Canal, what was called then the Souther Canal; I know of a dam being constructed across the river above our canal; I was the minor boss in connection with the construction of that dam; I was working as foreman; I put that in for Souther and Livermore; it was constructed in the summer of 1876, and extended entirely across the river; in 1877 the water was all turned into the canal, except the seepage water; at one time, in the fall of the year, all turned into the Livermore Canal, except the seepage water.
- 1462
- 1463

Q—What became of that?

A—I constructed a sand dam across the river below, about a quarter of a mile, and turned all of that into



- 1464 the McCord Canal; there was very little water passing down below me at that time; there was some seepage water flowing over my dam again; I shut off all of the water that I could with my sand dam in 1877, and at that time the Livermore canal was taking all of the water, except the seepage water, that passed through their dam; Mr. Souther had control of the dam, and I had the privilege from Mr. Souther to take off some brush, so as to connect my ditch with his ditch, so as to run the water from the dam at a certain point, so that it would go into my ditch; I did so and the water was turned into my ditch; that is the water we made our
- 1465 crop with in 1877, mostly from connecting with that dam—getting the water over the ditch in that way; I think, after we connected, it was probably two or three weeks before they disconnected it, when an armed man came and told us not to connect it again; and we were stopped from taking any more water from that point in that way; during the fore part of 1879 I had considerable trouble in getting any water; we could have used more water than we could get; we were compelled to do without it when we wished for it; it was the same way several times during 1879; we would have liked to have water when we could not get it; then there was water
- 1466 and we could have taken it, but we were requested and ordered not to take it; there was water in the river, but it was low in the fall of the year; I could have had plenty of water in my ditch if I had been allowed to take it; I didn't have the water though; the water in the river was rather low in the fall of the year, quite low; my ditch has been using water every year from its construction up to the present time; I know where the Calloway Canal is situated; the work commenced on that very shortly after I had commenced mine; it might have been a month or two after I had commenced mine, somewhere along there.

1467 Q—Did you ever see any notice of the Calloway Canal posted?

A—Well, I don't think my testimony would be very good on that. I don't recollect exactly where; I know I saw a notice, but I don't remember much particulars about it. I remember being out to the McCaffrey Ditch, above the railroad bridge. I was talking about this ditch.

Mr. HOUGHTON—No matter about that.

A—Well, what I remember is that called my attention in this talk—that called my attention to the Callo-



1468 way notice, and I remember it. I had seen at a point the notice of this man Calloway, and I saw then what I did not know before, that he had somebody associated with him. He talked as though *he* was going to take out the ditch and so on; he didn't say anything about other parties being with him. I noticed on this notice that there were several names. That is the first that I knew that there were several men in the Calloway; I don't recollect that I read it all.

Mr. HOUGHTON—We object to any evidence as to this notice, or any attempt at appropriation of the waters of Kern River by Mr. Calloway or the defendant, on  
1469 the ground that it is irrelevant and immaterial, and cannot effect the rights of riparian owners.

Objection overruled; plaintiffs except.

The WITNESS—I read a portion of the notice; I don't know that I read it all; I recollect figuring on the amount of water that they called for, it being a great deal larger than my ditch—several times as large. I could not tell you how much it claimed; I recollect it was many times larger than my ditch, but I don't recollect any further particulars about it; by making some figures on account of the way Calloway was proposing to build his ditch, was what called my attention to it. The way  
1470 a man could get the water out the cheaper, out of my ditch or his. I am now referring to the amount of water claimed by the notice; could not tell you how much it claimed; I recollect it was many times more than my ditch; I don't remember, though, what the statement of the notice was. I saw them at work before they put the scrapers on; saw them at work, grubbing and cleaning out the head of the ditch before they put on the scrapers; my impression is that it was in 1875, I think in June. They put scrapers on in June or July, and the grubbing that I saw done was in June or July, I think; they commenced scraping in a week or ten days  
1471 after they commenced grubbing; before that they had been surveying and leveling, to see where they could take it; I had been with Mr. Calloway and others looking at my survey, and seeing where the water would run. My best recollection is that they commenced grubbing in June, but I would not be positive; some time in June or July; I saw them at work there afterwards; I was by there very frequently afterwards, and with them. I think about a month after that—it may have been two months—I moved over there into what is called the Buterbaugh place, on Sec. 28, T. 29, R. 27,



- 1472 probably half a mile from the Calloway Canal. I lived there about two months, and I passed them every day at their work during that time. They were working every time I saw them, right straight along as long as I lived there. After that my son-in-law lived near the headgate; the sand box, or waste gate of the Calloway, about twenty or thirty rods from it. I was still building my ditch over there and had occasion to go there frequently afterwards, and in fact ever since I have been there repeatedly, and frequently in that neighborhood. After I moved back over there I did not see it then only occasionally; once in a while.
- 1473 I had occasion to go to the camp; I recollect going there two or three times to see a man that did the cooking or something of that kind there—boarding the men there or something of that kind; I was out there two or three times, out on I think Section 20, about the centre of it; their camp was about there; I was there frequently. That was after I had moved away; must have been three, or four, or five months; don't recollect the length of time; my recollection is it was sometime during the summer or fall of 1875. In 1877 I did some hauling along the canal as it was in process of construction; my son in-law sometimes hauled a little hay; that was in 1876. I think on the canal I was hauling some wood and hay in 1877. That was probably outside of the Township 29, Range 27, in the next Township 29, Range 26. I very often saw them at work on the canal, say during the years 1877 and 1878, and along there—during those years 1877 and 1878; I would be about there every week or two, along every few weeks. I don't remember ever being out that way when they were not at work, though they might have stopped for a week and I not have known it; I would not be positive whether they quit at any time or not; my attention was not called to it; I never had that question
- 1475 asked me until last year sometime; the best of my recollection is that they were at work whenever I was out there; I don't recollect any particular time that I was out there when they were not at work; my recollection is that when I was out there they were at work; I don't recollect any particular time, although I may have known that they did quit; I could not say with regard to that.

Q—What time do you speak of now—1876, 1877, 1878, or what year?



1476 A—Well, in 1875 and from that on; I don't just remember of any time except—

Q—All along through those different years?

A—Yes, sir; they might have quit for a week or two, and I not have known it; I would not pretend to say that they worked all of the time. In 1877 I did a great deal of work out there in the spring; then I know they were at work on the Calloway. That was the season that I hauled wood there, in the spring of 1877; during the whole summer I hauled to them—Mr. McCaffrey and myself. I was there in the spring, but I won't be positive as to the month, and then began my work and  
 1477 the observations I speak of. I kept at work continually during that time; we made a good many ditches out there, and I was working with several teams; made ditches most of the time, and frequently saw gangs of men working on that ditch. I now refer to the spring and summer of 1877. In the spring of 1877 I hauled wood to the camp; whenever I had occasion during that time to be there to observe it, they were at work as far as I remember; I remember the spring and summer of 1877 more particularly than any other part of the time. In 1876 I was not hauling at their camp so much; we did not frequent their camp so much, though I was  
 1478 making some of my ditches and looking to my canal more or less. I have frequently seen them there while I was living at the Buttabaugh in 1876; I saw them frequently at work; I saw them there probably every few weeks; I was around their camp, so I could see the men at work and see the teams.

Q—What time in 1876 was this?

A—Well, I say during the whole year I have been over on that side. My business has been a little in sight of the Calloway for several years; since the thing started up to this time. There were sometimes a few weeks or may be a few months that I would not be over to the ditch, or something of that kind, but as a general thing I have seen it since, every few weeks at any rate.  
 1479 After the work commenced in 1875 I was a couple of months right on the canal, which is on the head, right where the men were working. I was foreman under Mr. Colton and Mr. Souther on the Souther ditch in 1876, and I lived out there; I frequently went home and stayed there, once a week, may be every night as a general thing; go out in the evening and come back in the morning. I spent the summer of 1876 mostly as a kind of foreman under Souther, working there greater



1480 part of the time. I lived in sight of the Calloway during the summer of 1876, and I crossed it every time I went home.

Q--I mean where they were at work.

A--They were at work not more than a couple of miles from my house, where you could see the teams when they were at work; but most of the days when I was on the canal I would not have been likely to see them so much because on Sunday they would probably not work, but I would see them sometimes. I had occasion to see that canal in July, August and September, 1876, but I saw it more in the summer; by summer I 1481 mean to include spring and summer. Well, from June on I would call summer in this country; from January to June is about the spring months; it is about the time we put in our crops; that is about the way I was figuring and classing it. When I speak of spring I mean from January to June. I have seen them at work sometimes there in the summer of 1876; and each time during that summer there were evidences of progress; I saw the teams and camp going further on; that is about all I could see that they were moving further on, and see the teams further down. It appeared to me to be a progressive work during 1875, a heavy gang of men at 1482 work. In 1877 there were only two four-horse teams a part of the time; they took off a part of the work and commenced a little lighter, and in 1877 they had a larger gang; in 1876 was the time they took off a part; yes, it was 1876. They had on — Roberts and Broad took the contract and made it go fast; I was frequently at their camp; I have been frequently there since 1878; I have frequently seen them at work. I know the Anderson Ditch, sometimes called the Baker & Noble Ditch; I commenced drinking the water out of that ditch in 1872; I lived right on the banks of it in 1872, in the fall; I was there in the summer, in July, 1872, about 1483 the 1st of July; I saw the water in the ditch, and they were harvesting a crop that was raised by water from the ditch; the ditch at that time was twelve feet on the bottom, and the banks were pretty much perpendicular. That ditch was right in the junction of Old and New Rivers.

[Indicates on Map I.]

It is marked there; that is the Noble Ditch; it is correctly delineated through that section there, as I know its course; I know it is taken out of Section 26, in Township 29, Range 27, and the course is about the



- 1484 direction that the ditch was in 1872, except some little places where we had cut off some of the little curves to make it a little straighter, when it got further down into Section 34. I know where Mr. Corcoran's place was in 1872; it was on Section 4, just opposite the Stine place, on Old River. In 1872 that ditch was down as far as the Corcoran place; that is now called the Stine place; it is just across the river from the Stine place. To my knowledge the water has been used out of the Baker & Noble Ditch, or Anderson Ditch, since July, 1872, every year for the purpose of irrigation and stock purposes. On the Anderson ranch it was used during my stay for stock a good deal. I know the Gates Ditch; I had a one-fifth interest in it; I claimed an interest in the Noble Ditch, and a sixth interest in the Gates Ditch; the Gates Ditch was nine feet wide on the bottom when I went there in 1872; in 1874 they made it twelve feet wide on the bottom.
- 1485

Q—You spoke of the extent of water used in your ditch during the several years after its construction. I ask you whether you used the full capacity of the ditch, or how that was done?

A—No, sir.

- 1486 Q—How did you use it generally when you had a plentiful supply of water in the irrigating season?

A—We would calculate to turn in as little water into the ditch as was necessary to irrigate the land that was under it, that is, the land that we were farming; but a good deal of the land that is irrigated now was sagebrush the first season that we irrigated; we increased the use of the water along there as they cleared up the land under it. We have never used the water to its full capacity; I could not say what the general average of water used was; in fact, there has never been no squero on the ditch; whatever we have needed for the purpose of irrigation we have taken, when we could get it. There had been considerable time since that year in each year; in 1876, perhaps, there was all of the water that we could handle got in; we had all of the water we wanted for all the land there was; but after that, in 1877, '78, and '79, etc., there were certain times that there was a scarcity in the river that we didn't use the water on account of scarcity of water, but let it go down to others that asked us for it, and didn't use it even for that land then being used.

1487



## 1488 Cross-examination of

W. P. McCORD.

- At the end of 1875 the McCord Ditch was constructed about four and one-half miles from the river; a part of that was a sort of natural ditch; we did some work to turn the water into the head, but that was in 1876; the first work we did to turn in the water at the head; we did a little work in the fall of 1875; the water ran in that slough a mile and a half or a mile and a quarter; in 1875 we went to the river and scraped down twenty or thirty rods to get water out of the river into the slough; about twenty or thirty rods from the head, and in 1876 a great deal of work was done at the head to get the water in; in 1875 I scraped out the head of the ditch so that it would get water from the river; don't understand me that we took it to irrigate; we took it to try our ditch to see whether the water would run, etc.; there was an obstruction in the way so that we could not get the water to the lands that we wished to irrigate, and I did not turn in the water for that purpose, but sometimes we tried the ditch down as far as the railroad; at certain high water, water would run into that channel or slough if I had not removed the obstruction; in 1875 we took our ditch out of the slough up to the neighborhood of Mr. Thompson's; I posted a notice at the head of the slough, on the island surrounded by the slough, and a copy of the notice at the headgate, and I recorded another copy; I think I signed all three of those notices; if my recollection serves me right, the notice that was at the headgate I put up there on a willow tree, about six or eight feet from the headgate, right at the crossing, so that everybody could read it that passed along the road; the main road from Bakersfield to Linn's Valley went right by this tree that I posted it on, so that everybody could see it there; and that copy, I think there was something the matter with it; I think that the day I put it up I did not sign it and my attention was called to it, I think, by Mr. Beardsley, and I went back there and signed it and put it up again a few days afterwards; that was at the headgate; the other notice that was on the tree, up where we took it out of the river, was in a place that would not be very likely to be seen; there was no public road there at the time, and that is the reason that I posted two notices so that this one could be seen there at the headgate; the one



- 1492 on the river was signed; I recollect that one was all right; I went and examined that, after Mr. Beardsley called my attention to this one, and I recollect that there was some date or that my signature was lacking, or something of that kind; I did not take any water into that ditch in 1875 for irrigation; in 1876 the ditch was finished as far as the Thompson place, three or four miles from the slough; but very little land was irrigated from the ditch in 1876; probably but sixty or seventy acres; the next year I got the hole through the railroad bridge so that I could irrigate the lands on the plains, and then we ran out small ditches to the farms in different
- 1493 directions and irrigated the lands; I never have extended the main ditch since that time; I think this ditch is about correctly delineated on Map I; the branch ditch, which runs near the river, we constructed in 1878 or 1879, and the northern branch was constructed out to Sec. 6, T. 29, R. 27; my recollection is that that was done though in 1877; I cannot tell you the parties who irrigated from that ditch in 1877; that is Section 8 and Section 6; but there was only a portion of them irrigated; they had some little farms there; two men were irrigating on Sec. 6; there were four on Sec. 8; Dan Wagner, Mr. Wilson, and the two Cornells; I don't
- 1494 know how much land they irrigated out there; one of them had a piece irrigated, probably half a section, may be less or more; that is all there was on that branch of the ditch; on another branch of the ditch there was a man named Bennett, who was next to Buttabaugh's; he was on Sec. 28, T. 29, R. 27; I don't know how many acres he had; Mr. Robb irrigated from that ditch in 1877 on Sec. 21; Mr. Thompson also irrigated; he undertook to irrigate from the Beardsley, but failed to get water, and irrigated his land from the McCord ditch pretty much altogether; he irrigated very little from the Beardsley; probably he took twenty times as much
- 1495 water from the McCord as he did from the Beardsley; both he and Mr. Robb got the majority of their water from the McCord, and it is very difficult for me to say how many acres were irrigated from the McCord in 1877; I am very doubtful if there was 1,000 acres; I don't think there was that amount; in 1878 there was a little more than there was in 1877; each one out there increased their acreage more or less; about the same men were there in 1878; in 1879 we increased the acreage very much; we made this new ditch; had that in operation in 1879; I think that Mr. Jewett and Mr. Maul and



- 1496 these fellows on the McAffrey Island commenced and irrigated considerable land over there that year; I think it was increased one-third or more that year; I may be mistaken about that though; those are questions I have not posted myself on; at the time we were using that Maul Ditch, I think the second year we used it, we had more acreage, perhaps, than we had this year; I think that was in 1880; the Maul and the Jewett land is not being irrigated from that ditch this year; the flume across the Maul Ditch has given us a good deal of trouble in getting sufficient water across it; there has been knocked out the props from under it, it being sort of temporary, so that it gave us great trouble to get the water across it, and the parties who have been irrigating on the island there got sort of tired of it and were not able to make a new flume; they quit, and they have irrigated part of their land with other ditches and done without it this season; I should say there never had been more than 2,000 acres, in that neighborhood, irrigated from that ditch at any one season; I would give that as a rough guess; during this year, 1881, the following persons have received water from there: E. W. Roberts, Mr. Beardesley, Mr. Thompson, Mr. Donaldson, Mr. Glass, Mr. Buttabaugh, and two of the Dills,
- 1497 Mr. Greeley, Mr. Wagner, E. S. Jewett, N. R. Ferguson, and Mr. Johnson, and one or two others—I cannot remember their names—and myself a very little; Mr. Beardesley received a portion of his water from the Beardesley ditch; that portion of the land that is under my ditch. He uses the McCord and has for several years; Mr. Carr has a deed for some of the stock in the McCord Ditch; I could not fix the time in 1875 that I moved to the place near the Calloway Ditch; I am quite certain it was 1875; we were at work on the ditch when we lived there; I recollect that it was in the rainy season we moved there; I think it was in the early part of the season of 1875; the spring or summer; in the season of the rain; I recollect one thing when we moved there; I recollect that when we went to dig a well the ground was moist for about a foot and a half on top, and it must have been about in the spring of 1875; the first time I moved there was after we posted the notice on my canal; it was in March, 1875, I think; I remained there two months and then moved back to the forks of the river, in the junction of it, at what is now called the Anderson Ranch; during the two months I was living near the Calloway, Mr. Calloway was at work on the
- 1498
- 1499



1500 canal, and that was about the commencement of his work; when I moved on to the other place, in going from my work to my house, I crossed the river every day right opposite my house, which was at the junction of the river on Sec. 26, T. 29, R. 27; the junction of Old and New River; in going there I would not cross the Calloway where it was taken out on the Mesa; I didn't very often; I would when I was going over to my ranch; in going from my house to my work I would cross what was sometimes called the Calloway or McCaffrey Slough; it is now used as the Calloway Ditch; it was not the place where these parties were working at that time; in  
 1501 going up and down, just to my house and back, I would not, except at the time I was over, unless I went out on the Mesa; sometimes I would go out on the Mesa; in going from my work to my house, across that slough, I did not see them at work; I did not see them at work on the levee often, until they went to work on this slough; they went to work on this McCaffrey Slough after the ditch was constructed on the plains for a long way; I think, perhaps, in 1877.

Q—When did you first see water in that ditch?

A—In 1876, likely. That was before they had done any work on the slough; they turned it in the same as  
 1502 McCaffrey did; they might have gone up there and scraped up a little loose sand; that is all I do to turn the water into my ditch; I never had any headgate there. In that fall of 1876 I saw water in the canal. Mr. Barker turned in the water and let it run out on Section 20, and out through a hole in the slough, and made a lake there, perhaps of a hundred acres or such a matter. It ran out into the plains again and ran back, and I don't know but it connected with Kern River again. I don't think it was used for irrigation. Mr. Barker, I think, turned it out; he is the one who talked to me about it; I mean Mr. Vining Barker; he was the  
 1503 contractor there at that time, and working probably for Mr. Calloway or Haggin & Carr. I don't know who had it at that time. Mr. Calloway was Director on that canal there before Mr. Barker went on; I think Mr. Barker took it from Mr. Calloway; that is my impression. Mr. Broad might have been a partner of Mr. Calloway's at that time; I am not certain. In 1877 he was the partner of E. W. Roberts, and that is the time that I did the hauling; I drew that wood to a point just inside of Township 29, Range 27; I cannot tell the month, but probably after the first hay was cut; it



1504 must have been in the spring. My recollection is that the first water turned into that canal and used for irrigating purposes was in 1876. My testimony in regard to a great many of these things is off hand; I think it was in 1875 that Mr. Barker turned the water into the ditch to try it for the first time, and that it was turned in there to irrigate in 1876. I think, and that Section 19 and some other sections were irrigated in 1876.

Q—Don't you know as a fact that in the fall of 1875 that Mr. Calloway left that ditch, and that the work ceased there for months in the fall of 1875? Don't you know that Mr. Calloway left there and quit work on that ditch for months in the latter part of 1875?

A—I don't know positively that he did, but I should not wonder if that was the case at all. I am not stating that they worked continuously; I do not wish to be understood in that way; I don't recollect that; I have heard it stated here in the last three or four days; I don't recollect; I don't recollect during the fall of 1875, times when Mr. Calloway was not at work on the ditch, but it may have been the case; I would not state that it was not or was; that may have been the case, but I don't recollect positively about it.

1506 I assisted in constructing the dam at the head of Kern Island Canal in the year 1876, and stopped the water in the river; took a portion of the water so that they could turn in what portion they wished. It raised the water against the head of the Souther Ditch so that they could turn in all the water they wished; the balance of the water ran over the dam; we made the dam so as to let the rest run over. That dam was there the next spring; when we were irrigating in the fall; I think a little portion of it was blown out that spring—claimed to be; my idea is that it was washed out; it was a short piece of it, and they mended it up again, and it stood there for a season,

1507 and turned the water into the ditch in 1877; that was the season that all of the water was turned into the Souther Ditch—I mean the Livermore Ditch. The Livermore Ditch is the ditch that runs to the Kern Island Mill. The first I knew of the Anderson Ditch was in 1872; I don't remember what proportion of land Mr. Corcoran irrigated by that ditch in 1872; Mr. Noble irrigated from that ditch, I think, something over 100 acres; in 1873 there was considerable more irrigated on the Anderson Ranch, and probably on the Corcoran Ranch, but how much I don't recollect; I saw Mr. Cor-



- 1508 coran have some corn there; the ditch was twelve feet wide at that time; I cannot tell you how much water it carried; I have been living on that ditch most of the time since that time, the greater portion of the time; I lived there a year ago; there was no gauge at the head of that ditch when I lived on it, but there is now; but I have never watched it, nor paid much attention to it; I saw in 1872 but very little water in that ditch; the crop was made after I got there mostly; in 1873 the ditch was twelve feet wide, and it was three feet deep, and the water was running very rapidly; I did not measure it; I know they were running over two feet of water in
- 1509 1873; I think they irrigated in 1873 400 or 500 acres. We calculated to make the ditch 18 feet wide on the bottom; the most of the way it was 20; the grade was one and seven-tenths feet to the mile, I think; I thought that ditch would irrigate, when used to its full capacity, somewhere in the neighborhood of 10,000 acres; but since I have seen the water in the Calloway I have thought it a little mixed whether it would do that or not; it will probably irrigate 6,000 or 8,000 acres at its full capacity; a portion of the ditch has not been made of sufficient capacity to carry water to irrigate that amount; but I am speaking of the ditch as we started it, and the fore part of the ditch, down to the point where the first forks are now; the amount of water we usually carried in that ditch depends on the time of year; sometimes we appropriate in the neighborhood of 2,000 inches; I don't think we ever wanted more than that—2,000 or 3,000 inches. There is a gauge at the headgate; I should think that the water ran in that headgate, taking all of the time in the year, would not be more than one foot deep, or less; the water may be fifteen inches deep; I don't know anything about it by the gauge; I never was interested in that.
- 1510
- 1511 Q—You say that that ditch, 18 feet wide on the bottom, would irrigate 6,000 or 8,000 acres of land; still, a ditch 12 feet wide and carrying 2 feet of water will only irrigate 400 acres of land?
- A—They let the water run through the ditch and back into Old River frequently; we turned the water in; we had a sand dam at the head to turn it back sometimes when we did not use it, and it runs back into Old River again; I do not mean to say there was only 400 acres irrigated there; my judgment is there might have been more.



1512 Q—Was there land enough irrigated to use a stream twelve feet wide and two feet deep?

A—No, sir; I should think not. The Gates Canal, when I went there in 1872, was nine feet on the bottom; in 1874 it was changed and made twelve feet on the bottom. Prior to 1874 the water in the Gates where I crossed it frequently was fifteen inches deep; that was in 1873, but that was not regular at all; some days it would be three, or four, or six inches deep, and then other days it would be fifteen inches may be. In 1874 they were irrigating more land from it, and kept the ditch full after that. I was away from there in 1874 a good part of the time. In 1873 I could tell you about how it was. In 1875 sometimes they had great trouble to get the water in there—had to make sand dams to get it in; sometimes there was only five or six inches, and other times fifteen inches, may be two feet. The grade of the Gates Canal was one and seven-tenths feet to the mile. My impression is that the grade of the Anderson was the same, though it might have been one and eight-tenths feet.

1514 Re-Direct Examination of

W. P. McCORD.

(To Mr. HAGGIN.) I am quite certain that it was in the spring of 1874 that the Gates Ditch was changed; that is my recollection.

Re-Cross-examination of

W. P. McCORD.

1515 (To Mr. HOUGHTON.) The Anderson Ditch takes its water out of New River now, right at the junction of Old and New River. In 1872, '73 and '74, there was a wing dam thrown out there to take water in at that point. In the fall of 1874 I helped Mr. Anderson to go through the ditch inside of the island and to place a wing dam in, and went up to dig the ditch out at the fork. Then we turned in water from the ditches with the wing dams to keep it from going into the river; made wing dams on both sides so as to run it in. It came right out at the junction then, and the greater



1516 part of it was going in Old River, and the rest of it in New River, and we run up wing dams so as to catch a little in the fork; we were right at the junction; just below the junction, lower down on New River than the junction; in 1872 and 1873 it was lower down; it was taken out of New River.

J. A. SAMPSON,

1517 A witness for defendants, being duly sworn, testified as follows:

(To Mr. HAGGIN.) I reside in Sumner; have resided there four years next September; I am a railroad employe.

Q—Have you in connection with your office, during the time you have resided there, ever taken any observations of the rainfall and of the thermometer?

A—Yes, sir; continuously every day.

Q—Have you any report of those observations?

A—Yes, sir; I have them with me.

Q—Will you allow me to see them?

1518 [The witness produces them.]

Q—You made these records yourself?

A—The most of the figures there are mine.

Q—What proportion of them are yours?

A—The larger proportion; I copied them every day.

Q—Have you, within the last month or two, furnished these records to Mr. Schuyler?

A—Yes, sir; I cannot say the date; I think it was some day last week.

Q—What were the records which you gave to him?

1519 A—Just the footings of each month; they were the records of the rain-fall and temperature; these records are of the rain-fall and temperature taken at Sumner; we have a signal post for that business where we keep those things.

Q—For what years did you furnish Mr. Schuyler with that record?

A—I think for three years past. I think that is all there is in the book. I think it commences the first of January, 1878. In the year 1879 I took those records; I took them myself.

Q—All of them in 1879?

A—Not all of them; once in a while my operator



1520 would put them down. The figures, almost all of them are my own figures. The greater portion of them are mine. The operator is a little careless about the business. This is the original book, the only one that we kept. It is correct.

Q—How about the year 1880?

A—The same thing. I have done it all myself that year, in 1880, and the statements there are correct, and made at the time of the observations every day; and this book contains the original record. I mark them down in this book at the time; I always put them down in ink. Those are the original entries made by  
1521 myself. I cannot, without the aid of this book, give you the record that was made. With it, I can explain the figures to you.

To Mr. HOUGHTON. Q—You say that all of these entries are not made by yourself.

A—Yes, sir.

Q—They are not all made by yourself?

A—No, sir; the day operator, a gentleman named Keyes, made the other entries. He is now in Los Angeles.

Q—Did you furnish a copy of this to Mr. Schuyler?

A—Yes, sir; I copied just the footings; a copy of  
1522 the whole thing was not drawn off. The footings that appear in this book I gave him. I can state what portion of this are by myself in 1879. I can pick out every figure that I put in there. I can pick out the figures made by other people.

Q—How are those entries of 1880 made?

A—The most of those are made by myself.

Q—Not all of them?

A—No, sir; once in a while a day I would be gone, and the operator would put them down. The operator would make them because I was not there every day; I was absent. I always made them when I was in  
1523 Sumner. I was away in November, 1880. I was away a week.

Q—What other times were you away in 1880?

A—Well, I have no record of any particular time, except, perhaps, to be gone two or three hours at a time. I was only away that one time for any length of time in 1880. I was away in 1879 all of the month of December, except one or two days, I think; and also all of the month of November I was away, except the first day or two.

Q—Then, during all of that time these entries were made by whom?



1524 A—By Mr. Keyes, the operator. I was away one week in 1878; Mr. Keyes made the entries of it during that time.

To Mr. HAGGIN—Mr. Keyes made a portion of these entries; they were made under my direction.

Q—Do you know of these things which he makes record of?—do you know of those things which he records there, yourself?

A—Of the rain and wind, yes, sir.

Q—Were they correct?

A—Yes, sir; and made at the time.

1525 Mr. HOUGHTON. Q—How could you know of the correctness of those, if they were made during your absence?

A—He is the man who was paid for doing this business.

Q—Do you know anything about whether he kept a correct record or not?

A—I suppose he did; I don't know anything is correct that I don't do myself; I did not see him put the figures down; I was away for two months in San Francisco; in December I was in San Francisco, and in November I was sick and in bed. I don't know, as a fact, that any of the entries made by him are correct.

1526 Q—When you say that they are made under your direction, you mean that when you left you directed him to keep that record?

A—Yes, sir.

To Mr. HAGGIN—I can pick out the entries that were made by myself, and I know them to be correct.

Q—Will you take the record of 1879, and say what portion of that is by yourself?

A—About one-half of the entries here, or nearly so, were made by myself in January, 1879.

Q—Were you present when the others were made?

A—No, sir.

1527 Q—Do you know that the records made there in 1879 are correct, yourself?

A—I did not go and examine that when the operator would go and take the record; I did not go and look over it afterwards. I did not take charge of the book altogether myself until the latter part of the year 1879. The figures are by Mr. Keyes, along in there. On the 1st of January I made all of the figures and notations; that is all I made that month, the first day of January. That day the wind was southeast all day. The thermometer in the morning was 60 deg.; at 2 o'clock, 65



1528 deg., and at 9, 59 deg.; cloudy, with a high wind. The reading was taken at 7 o'clock in the morning, when it was 60 deg.; at 2 o'clock in the afternoon, when it was 65 deg.; and at 9 o'clock P.M., 59 deg. "Cloudy; high wind all day." No other memoranda of mine during all that month.

Q—How much in February, 1879?

A—I didn't keep any in that month. I kept none for March, 1879; I kept none for April, 1879; I kept nearly all of May, 1879. Mr. Keyes took it in the morning of the day, and I would take it at night, and at noon, at 2 o'clock, and at night during the whole month.

1529 Q—Will you read that portion of it that you kept—that you know to be correct yourself?

A—May 1st, at 2 o'clock, the thermometer stood at 82 degrees; at 9 P.M. 72 degrees, calm all day; May 3d, 62 degrees at 7 o'clock, 72 degrees at 2 o'clock, 64 at 9 o'clock, and calm clear weather; May 2d, at 9 o'clock P.M., thermometer 67, wind northeast and cloudy; May 4th, thermometer 67 degrees in morning at 7 o'clock, 2 o'clock 80 degrees; 9 o'clock P.M. 70 degrees, clear weather and calm; 6th, thermometer 65 degrees in morning at 7 o'clock, 78 at 2 o'clock, 67 at 9 o'clock; 7th, 67 degrees at 2 o'clock, and 60 at 9 o'clock, weather clear and wind calm; on 8th, thermometer 60 at 7 o'clock A.M.; 71 at 2 o'clock P.M., and 62 at 9 o'clock; calm weather and clear. On 9th, 70 degrees at 2 o'clock; 60 at 9 o'clock P.M.; wind northwest, and cloudy in the morning and at noon, clear at night. 10th, 65 degrees at 2 P.M.; 66 degrees at 9 P.M.; northwest wind; cloudy. The 11th, 60 deg. at 7 A.M., 76 at 2 P.M., and 62 deg. at 9 P.M.; clear weather; calm wind. I kept all of these except once in a while in the morning Mr. Keyes put it down. The noon observations and most of the night observations are mine.

1530

1531 Nobody but Mr. Keyes and myself made observations. Mr. Keyes is now in Los Angeles, in the employ of the Railroad Co.

Mr. HAGGIN—It may facilitate matters if we can have a copy of this made, and Mr. Sampson at some subsequent time be called to prove these copies.

Mr. HOUGHTON—If they desire to put it in that way, we might let the entries by Mr. Sampson be made in red ink, and those of the other party be made in black ink; it would show on its face. Then we can examine Mr. Sampson if we desire, in relation to it.



- 1532 Mr. HAGGIN—Then I will suspend Mr. Sampson's examination, and ask him to have the copies made, and after he gets the copies we will examine him fully about it.

L. CRUSOE,

A witness for defendants, being duly sworn, testified as follows:

- 1533 I reside at Belle View Ranch, in this county, and have ever since October, 1877; I was there during the years 1879 and '80.

Q—Did you make any observation of the thermometer there, or the weather, in any form?

A—I kept a record of the thermometer.

Q—Did you take any observations of the rainfall?

A—Yes, sir.

Q—Did you make a memorandum of it?

A—I did.

Q—Have you those memoranda with you?

A—Yes, sir.

Q—Will you let me see it?

- 1534 [The witness produces the record or memoranda.]  
Q—Are these the original memoranda made by you?

A—Yes, sir; they are.

Q—Made at the time of the observations, at the dates recorded on them?

A—Yes, sir.

Q—Are they correct?

A—Yes, sir.

Q—Did you furnish any of these observations to Mr. Schuyler monthly, during the last month?

A—I gave them to Mr. Schuyler several days ago, for examination.

- 1535 Q—These particular ones?

A—Yes, sir.

Q—There is one for January, 1879.

Mr. HOUGHTON. Q—Are all of these entries made by yourself?

A—I can tell by referring to the original.

Mr. HAGGIN—Look at this, and see if this is made by yourself [showing records of January, 1879]?

A—Those are all made by me. They are all correct.

Mr. HOUGHTON—Were all of these entries between January 14th and January 31st, 1879, made at the time they purport to have been made, 7 A.M., 2 and 9 P.M.?



- 1536 A—Not always, at the exact hour and minute.  
 Q—What time would they be made when they were not made at the hour?  
 A—I might look at the thermometer at 9 o'clock, and not record it until late in the evening.  
 Q—How is it about the 9 P.M.? You say that you noted at three different times during the day?  
 A—Yes, sir; if I did not at the exact hour, they were generally in the neighborhood of it.  
 Q—Did you always make these notes on the same day?  
 A—On the same day on which I took the reading of the thermometer.
- 1537 Q—On the same day on which they purport to be?  
 A—No, sir.  
 Q—Why not?  
 A—I don't know there is any reason for it. I might look at the thermometer before I went to bed, and record it the next morning. I always looked at the thermometer at the date it appears to be recorded here.  
 Q—Were you on the ranch every day between those two dates, January 13th and January 31st?  
 A—I was on the ranch every day to that time. I may have been away a part of the day. I cannot say whether I spent any night away from the ranch during that time or not. My memoranda was not always taken at that particular hour. I don't think there was any time—I think there was no time that I did not take them during the day that they are noted in. I took a reading of the thermometer three times each day, generally. There might have been a time when I was absent at that particular hour, and I got somebody to look at the thermometer at the time, and then I recorded it afterwards.
- 1538 Q—Then you took other statements in connection with your own in such cases?  
 A—In such cases.
- 1539 Q—How often did that occur?  
 A—I cannot tell you.  
 Q—Did it occur during the month that we have here, January?  
 A—I cannot tell you.  
 Q—Then you don't know whether they are all your readings or not?  
 A—They are all my figures.  
 Q—Then you don't know whether they are all your readings or not?  
 A—I think they are.



1540 Q—Do you know?

A—I cannot swear to it; it was our custom to do as I told you.

Q—You could not swear that they are all your readings?

A—I could not.

To Mr. HAGGIN—To the best of my recollection and belief, they are all my readings, and I recorded them at the time; it was my uniform custom to look at the thermometer, and record it myself.

Mr. HOUGHTON. Q—But if you were not there, then you let somebody else do it for you, and they afterwards gave it to you, and then you put it down?

A—Yes, sir; that occurred sometimes, but not often.

Mr. HAGGIN—You say these were made at the time, and that you believe they are all from observations made by yourself at that particular time; and that they were made and recorded then?

1542 A—To the best of my recollection they were. I could not state positively that each and every one was made by myself. I sometimes called upon others to take a reading for me during my absence, and I recorded them after I got back to the ranch. Sometimes when I took them myself, I did not record them immediately after taking the observation; but would do it at some other time; a short time afterwards. I always did it while it was fresh in my recollection; and I think that is correct, and shows what the observations were.

Mr. HOUGHTON. Q—You are not willing to swear that every one of these observations were taken by yourself?

A—Of course not.

[The paper or record is handed to the witness as a memorandum to refresh his memory.]

1543 [The record kept by Mr. Crusoe for the month of February, 1879, is produced and shown to the witness.]

Mr. HOUGHTON. Q—Were you at the Belle View ranch every day that month?

A—I am not prepared to say I was there, or was not. I don't know whether I was or not.

Q—Then you don't know whether you took those readings or not?

A—The majority of them I did. I cannot swear to all of them.

Q—Do you know what proportion of them you took?

A—I took a very large majority of them.

Q—How many do you think you did not take?



1544 A—I could not answer that question.

Q—Do you know whether you were away from there during that month or not?

A—I don't suppose I was away at any one time during February, more than a day, or a day and a half at a time.

Q—You were not away from there during February, at any time longer than one day?

A—I think not.

Q—When you were away, would some one else take the readings and make a record of it?

1545 A—If I was absent in February, that would be the way it was managed. That was the rule in every case.

Q—Then you cannot swear that the readings in there were made by yourself?

A—The entries are all mine.

Q—The readings?

A—I cannot swear as to the readings.

Mr. HAGGIN. Q—What is the best of your recollection about that subject?

A—I can swear that the greater portion of the readings were taken by myself. I cannot swear to each particular one. To the best of my knowledge and belief, the readings are all correct.

1546 Q—Were the readings taken by yourself?

A—I cannot swear that I took each and every reading that is recorded there; at times I adopted that rule. I cannot say whether that occurred during that particular month or not.

Mr. HOUGHTON. Q—You cannot single out those that you did not take, if there are any?

A—No, sir; they are all in my handwriting, but I cannot swear to any one I took.

Mr. HAGGIN. Those that were not taken by yourself, do you know whether they are correct or not?

A—I believe that they are correct.

1547 Mr. HOUGHTON. You don't know anything about it, except the statement of the party from whom you received it?

A—Certainly not.

Mr. HAGGIN. Q—Do you know who took them when you were not there?

A—I do not, sir; I think it was not always the same person.

Q—Is there any portion of that that you can testify to as having been taken by yourself?

A—The greater portion of it I can specify as having been taken by myself.



1548 Q—When you did not take them, who did take them?

A—I generally got some one on the ranch; I cannot specify who. Sometimes it was the clerk in the office would do it; sometimes somebody else that remained on the ranch while I was absent.

Q—Can you give me the names of any of the particular men who took a particular observation during that time; who did it for you; that is, during February?

A—I cannot do so. I could state who I asked; but not in any particular month; to take a reading.

1549 Q—Can you tell me whoever has done it for you during this time, or during February, or during the whole time that you took these records, from the first of January, or the first record in January, 1879, up to the end of December, 1880?

A—I do not remember now who was in the office in February, 1879. I have asked Mr. Winter, who has taken readings for me sometimes. Sometimes Mr. Garnet has taken readings for me. I cannot state who else.

Q—Has any body else done it?

1550 A—I cannot swear that there has. I believe Capt. Butt has taken them several times for me. I don't know anybody else; no one that I remember now.

Q—Can you tell me what month Mr. Garnet took them in?

A—I cannot, sir. If he took them it was in January, 1878, up to the last date of this; some time within that period.

Q—Do you know that he ever did take any?

A—I do, sir; I cannot say how often; probably not more than two or three times during the month; I think not more.

1551 The COURT—Under Section 2047 I don't think this witness can refresh his recollection from this.

Mr. HAGGIN—We will suspend the examination for the present. I would like to call Mr. Schuyler on the stand to show exactly what data it was that Mr. Schuyler did use.

S. W. WIBLE,

Recalled by defendants, testified:

Mr. HAGGIN. Q—Did you at any time in the month of February, 1879, in driving across the body of swamp



1552 land with Mr. Schuyler, across what is designated on some of these maps as the swamp land, or in crossing any part of that swamp land, say to Mr. Schuyler that that was the only slough in this swamp land; the only channel here; and that it ran out just beyond this place?

A—I don't think that I did.

Q—Or any words to that effect?

A—I don't recollect talking about the slough at all. I may have mentioned when we came to the slough, but as to any conversation about the slough I could not say that I did. There was coming up a rain and it was  
1553 getting dark, and got dark before we got home, and we hurried to get out of it. I remember passing not far south from Bonestell's place, on the old road.

Q—Crossing some depression or channel there, or whatever it may be, did you remark to him that that ran out just about to the Bonestell house?

A—I don't think—I cannot recall to memory; if I did it is something that, so far as I am acquainted with that now, it is a different thing. I don't think I made the remark. If I did I don't recollect it.

Q—Anything of that nature at all? Any remark about the slough in that vicinity?

1554 A—No, sir; anything more than I know we had to cross it on our road, and we followed it up some ways. I remember the circumstance of driving across the swamp land with Mr. Schuyler. I cannot say it was February, 1879. It was sometime, I think, during 1879, the time that he was around; that he was setting gauges.

Q—You have no recollection of any remarks whatever about the slough?

A—I might have made some remarks about the slough; and when we crossed it it was deep.

1555 Q—You don't remember telling Mr. Schuyler that slough terminated at Bonestell's, a short distance below where you were crossing?

A—No, sir; I don't remember any such remark.

Q—Do you remember any remark, or telling Mr. Schuyler that there was no other channel in the swamp land but this; that this was the only one?

A—No, sir; I do not; because I think we had crossed the other channel before we came there. I don't remember any such remark.

Q—Did you make any such remark?

A—I don't hardly think I did. I might have made



1556 a remark about the slough, but I don't think I made that remark.

J. D. SCHUYLER,

Recalled for def'ts, testified:

Mr. HAGGIN. Q—Did you in February, 1879, or thereabouts, in company with Mr. Wible, cross the body of swamp lands, which has been referred to here, and which are designated generally on this Map I in colors, yellow, green and pink, or any portion of them?  
1557

A—Yes, sir; I think it was that month; about that time.

Q—In crossing that body of swamp land did you have any conversation with Mr. Wible about any slough or channel there?

A—I had a general conversation about that country. I was seeking information with regard to the topography of the country at that time, and I was conversing with Mr. Wible on the subject at that time.

Q—Did you in the progress of that trip across there, come to anything in the nature of a slough, or channel?  
1558

A—Yes, sir.

Q—Whereabouts was that?

A—I cannot say; somewhere on the road that had been beaten across the tules and through the swamp, on the road crossing the swamp. It was the road that turned out from the canal on the west side of the swamp, and ran north-easterly. I don't know what section it was on. We did not have any map with us on that trip. I had seen a map of the slough, I think, or the swamp land.

Q—Did you know by reference to the map that you had seen, about where you were travelling?  
1559

A—Yes, sir.

Q—Would you remember that map if you should see it now?

A—I think I should, sir. We had not been using that map, to fix our course across there.

Q—Do you know generally about where Bonestell's place was on the swamp land?

A—I think it is on Section 24, T. 29 S., R. 23 E.

Q—With reference to the Bonestell place, where did you cross?



1560 A—As I recollect it, it was south of the Bonestell house, about half a mile, or a mile.

Q—Was there something in the nature of a channel which you crossed?

A—Yes, sir.

Q—Did you go up and down that, at that time?

A—As I recollect, we crossed the channel and came to the swamp land, at the east of it, and after passing down south-east of it we came to a bank, going on up, a little distance, striking it occasionally, as we drove along,

1561 Q—After passing that, had you seen any other channel through there?

A—Not that I recollect.

Q—Did you have any conversation with Mr. Wible at that time about the channels and sloughs in the body of the swamp land?

A—I did, sir.

Q—Your answer was confined to that particular trip of February, 1879?

A—Yes, sir.

Q—You say you did have some conversation with Mr. Wible?

1562 A—We were conversing about the character of the country all of the way along.

Q—Will you repeat, as near as you can recollect, that conversation?

A—I would find that a very difficult thing to do.

Q—What did Mr. Wible say in reference to that channel there—did he say anything?

A—He described it to me as a blind channel, the most of the way; that it terminated beyond, or near Bonestell's.

Q—He told you the channel terminated where?

A—Near Bonestell's.

1563 Q—Did he say that that was the only channel in the body of the swamp land?

A—Yes, sir; that is how I recollect it.

Q—You were seeking for information on that trip relative to the topography of the country?

A—Yes, sir.

Q—In your previous examination, a few days since, you said that you had based the calculations that you and Col. Mendell made, you said that you had heard Col. Mendell testify, and that you had assisted in making those calculations which you testified to here. Will you state to me exactly, as near as you can, the



1564 different data upon which you based your calculations?

Q—[after argument] Will you tell me what data you used in the calculation or estimate which you have made before—the estimate of the evaporation?

A—The data on which we principally relied for the scale of evaporation during the different months of the year, was the observations on the lake, that had been made in September, 1879. They were made by Mr. Dixon; and for the mean temperature, that is, to obtain the mean between the extreme years, between a very wet and a very dry year; the records of temperature for 1879 and 1880, as recorded in Sumner, comparing them with the records for the same year kept in Visalia, show the difference in temperature between the two points, and the analogy between them; also, the record of temperature kept in 1879 at the Belle View Ranch. There were other records, in other years, that we consulted; but they were not absolutely used in the calculation. It will be seen that these give the mean that we wanted. The two years are selected from all the data that we could obtain, to obtain a fair mean.

1565 Q—Can you, with the data which you obtained from the observations upon the lake, made by Mr. Dixon in September, 1879, and the records of temperature and humidity obtained at Visalia, those which were introduced this morning, and the records of temperature obtained from Mr Sampson, or which Mr. Sampson has in his record, make an estimate of the evaporation?

A—I should consider that data would be a very good guide.

Q—You think that would be sufficient to make an approximation?

1566 A—Yes, sir; the use which is made of the observation of temperature here was to show a comparison between the dryness of the air here, and the air in Visalia. But the given mean temperature in Visalia, observations show a certain relative humidity of the air; and, as we have no observations of humidity in this county, we can only reason by analogy, that a similar temperature here would give a similar relative humidity.

Q—Do you think that that reasoning is fair, and sufficient to base a deduction upon?

A—It seems to me so.

Q—And that you can approximate in that way the amount of evaporation here?



1568 A—I should think so.

Q—Is Visalia in this same valley; in the same line of temperature?

A—Yes, sir.

Q—Are the general characteristics, from your observation of the two places, similar in temperature?

A—They are; Bakersfield is slightly warmer.

Mr. HAGGIN. There are certain observations here which we propose to prove by Mr. Dixon; I would like to show them to the witness, so as to identify them as being the ones which he used.

1569 Q—Are these the records furnished you by Mr. Dixon, from which you made your estimates [showing].

A—Yes, sir.

Q—Are these the only ones?

A—They are the originals; yes, sir. They were made under my instructions.

Q—Is Mr. Dixon employed by you in your official capacity?

A—Yes, sir.

Q—As your assistant?

A—Yes, sir.

Q—That was part of your official business, to make these observations?

1570 A—It was. The record referred to is on the third page from the back end of this book, and there is following that a record of evaporation from a pan in the centre of the lake; and on the side, or near the shore of the lake.

Mr. HAGGIN—Well, Mr. Dixon, who made this record, will be here, and we will prove that he made the record.

The COURT—They might be read and if not identified they could be stricken out.

1571 The WITNESS—The pan that was placed in Kern Lake had been moved from a point in Reider Lake, in Bakersfield, and the note here is: "Removed on the 30th of August, 1879, at 10:40 A.M." It was placed in position and filled with water on the 5th of September.

Mr. HAGGIN—Will you read this record?

A—Over the date of September 5th there is: "Northwest wind, 11:30 A.M., 89 deg., 81 deg., 90 deg., 0.105, 0.000727." Over the heading of Saturday, September 13th, there is also a note: "Northwest wind, 12:30 P.M., 86 deg., 86 deg., 118 deg., 0.096." Then "0.000497." Under the heading of September 19th: "Southwest wind, 12:05 P.M., 86 deg., 86 deg., 120 deg., 0.150, 0.001042."



- 1572 Under the head of September 29th they note: "North-west wind, 12:10 P.M., 78 deg., 78 deg., 88 deg., 0.180, 0.000750." Under the same head-note the record for the pan placed near the shore of the lake: "August 30th, 10:40 A.M., 88 deg., 86 deg., 90 deg. Loss in fractions of feet in pan, 0.480; loss per hour in feet, average, 0.00125." "September 5th, 11:10 A.M., 79 deg., 83 deg., 90 deg." There is a column here of "Time," which has been inserted in ink after the record was made, but it is simply worked out from the data given in the first column. I will not read that.
- 1573 "Loss in fractions of feet in the pan," under that heading, "0.201; loss per hour in feet, average, 0.00139." "September 13th, 12 m., 88 deg., 90 deg., 118 deg., 0.195, 0.00101." "September 19th, 12 m., 81 deg., 89 deg., 120 deg., 0.156, 0.00108." "September 29th, 12 m., 76 deg., 80 deg., 83 deg., 0.189, 0.00079." That is all.

Q—Can you make a calculation of the evaporation based upon these data you have mentioned; the record of the temperature and humidity in Visalia, and the Sampson record of the rainfall, and the observations you have just read of Mr. Dixon?

A—Yes, sir.

- 1574 Mr. HOUGHTON—We object to that, on the ground that the witness has already once testified on this question. He cannot be recalled now.

Objection overruled. Plaintiffs except.

Mr. HOUGHTON—We make the same objection now that we made to the testimony when it was offered previously.

Objection overruled. Plaintiffs except.

Mr. HAGGIN—I don't suppose you can make that calculation in court, can you?

- 1575 A—I can make it in a little while. I would not require the records now. I know the comparison between the temperature there and here, and I have consulted them, and it is sufficient. I have satisfied my mind that the temperature is as great or greater here than it is up there.

Mr. HOUGHTON—Then you can do it without the aid of these data, without the memoranda; you can make the calculations?

A—Yes, sir.

Q—You remember them all, of course?

A—I remember the annual mean. I remember the fact.



1576 Q—You can remember all of these reports that have been made in full, at Visalia, 24 pages, and also the record for two years, and the record of Mr. Sampson for two years, and the record of Mr. Crusoe for one year? All that is material.

Mr. HAGGIN—I did not mention Mr. Crusoe.

Mr. HOUGHTON—Mr. Schuyler has mentioned him.

Mr. HOUGHTON. Q—Did I misunderstand you, if I understood you to say that in getting at the temperature here you took the two years of Mr. Sampson, commencing in 1879, and compared that with Mr. Crusoe?

1577 A—Yes, sir.

Q—That is so, isn't it?

A—I compared it in 1879—Mr. Sampson's and Mr. Crusoe's. I can make it out without Mr. Crusoe's, and I propose to make this calculation without using Mr. Crusoe's record. I can remember all that is necessary for me to know in regard to the temperature of this place, to make this calculation; I should have to consult the Visalia record, but I proposed to consult that and also the Dixon record.

1578 Q—Do you say that in your former observations or estimates, that you had not taken into consideration those made by Mr. Crusoe?—that you had merely compared that with those of Mr. Sampson, but had based your estimates upon Mr. Sampson's record?—is that correct?

A—The only use made of any of these records was to satisfy my mind that the temperature was as great here, or greater than it was in Visalia, where there is a record of the humidity. Having made these comparisons once, I am satisfied.

Q—Then they are not all necessary ingredients to the making of this calculation, at all?

1579 A—It was simply to get at an estimate of the comparison between the two places; this is simply to form a judgment. I should have to consult the Visalia records to know the scale of humidity.

Q—Will you be kind enough to make an estimate of the amount of evaporation, based upon these data?



1580

FRIDAY, MAY 13TH.

Testimony of

J. D. SCHUYLER.

(Continued.)

Mr. HAGGIN. Q—Did you make this calculation that I requested you to make?

A—Yes, sir.

1581

Q—Have you it with you?

A—Yes, sir.

Q—Let me see it, if you please.

[The witness produces a paper.]

Q—What were the data that you used in making this calculation?

A—The observations on the lakes as to evaporation; those made by Mr. Dixon, and also those of the relative humidity as observed in Visalia.

Mr. HOUGHTON—The evaporation on the lakes, and what else?

1582

A—The relative humidity as observed at Visalia. I made two calculations, basing one of them upon the observation of 53-100 of a foot loss, in the center of the lake, during September, 1879, which corresponds, in the same time, to the mean relative humidity, 42.9, for that month. The evaporation for 1879 would be 5.6 feet; for 1880, 4.76 feet. The mean of the two years would be 4.92 feet. This was based upon the observations of the minimum loss upon the lakes.

Mr. HOUGHTON—I understand that this was made simply upon the observations in the lake, assisted by nothing else?

1583

A—Assisted by the tables of relative humidity, which gives the scale of evaporation during each month; the table furnished by the observatory at Visalia, and the same which has been introduced in evidence. The other calculation was made on the basis of the mean between the two observations of evaporation in the two lakes, the one being near the centre of the lake and the other near the margin. That gives a result of 6.4 feet in 1879, and 4.74 feet in 1880; the mean of the two, 5.39 feet.

Q—From your experience in this county and observations of the temperature, do you think there was that amount of evaporation?



1584 A—If I was making an estimate for any public work, in which evaporation figured, I should take the smaller result of the two to be within the limits.

Q—Do you think the average annual evaporation exceeds those amounts which you have given, or either of them—the average annual evaporation?

1585 A—It is not less than those; I believe, in my judgment, not less than those amounts. I think it is fully equal to that; I think so. In this calculation the winds were not regarded. The records show that there were much greater winds in other months of the year than in September. The wind, the velocity of the wind, is a powerful element in evaporation. The greater the wind the more the evaporation. From my knowledge of the country, these estimates are not in excess of what I believe the evaporation to be. I would say, in explanation of this scale of evaporation, based upon the relative humidity, that it is the general scale adopted by engineers, although some authorities use a scale based upon that of temperature—the changes of temperature. That would give a result somewhat in excess of this.

1586 Q—Have you ever crossed the body of swamp land between Kern and Buena Vista lakes, in the neighborhood of that slough—the connecting channel between them?

A—I have never crossed the body. No, sir.

Q—Have you ever been through the slough?

A—Yes, sir.

Q—When was that?

A—About February, 1879, as near as I can recollect.

Q—Was there water in the slough at that time?

A—Yes, sir.

Q—What was the condition of the water as to the banks of the slough?

A—It was considerably below the banks.

1587 Q—I am speaking of this slough between Kern and Buena Vista Lakes?

A—Yes, sir. It was considerably below the banks.

Q—Was there any water outside of the banks of the slough?

A—I didn't see any.

Q—How much was it below the banks?

A—Well it varied all the way, I think, from a few inches up to 3 or 4 feet.

Q—Do you know the depth of the water in the slough at that time?



1588 A—Our soundings showed that it was about 3 feet at each end, and about 12 or 15 feet in the center, if I am not mistaken. Twelve feet was about the depth.

Q—Did you make any soundings of the lake?

A—We would stick down an oar occasionally, as we went through.

Q—How did you find the depth of the lake as compared with the slough?

1589 A—We did not find anywhere in the lake as deep water as there was in the slough. The 3 feet of water that we found in the slough, was at the east and west ends of the slough, or where it enters each of the lakes. In passing through the slough, we could see outside of the banks. But we saw no water over the banks. There were thick tules there, and I could not see very far. In the other places the tules had been burned off, so that we could see some little distance. There was no water outside that I remember.

Cross-Examination of

J. D. SCHUYLER.

Mr. HOUGHTON, Q—Have you the books which Mr. Dixon kept, which you had in Court yesterday?

1590 A—I have—no, sir. I think Mr. Dixon has it.

Q—Didn't you take it with you last night?

A—Mr. Dixon kept it in his pocket.

(The book is produced by Mr. Haggin, and handed to Mr. Houghton.)

Mr. HOUGHTON. Q—Have you the records of the signal office at Visalia?

A—I have the copy that was furnished me at the office some time ago.

1591 Q—That is a copy which was furnished you long ago. Have you the copies which were put in evidence last night, the original, or copies introduced yesterday?

A—No, sir.

Q—Did you have them last night?

A—No, sir.

Q—Have you Mr. Sampson's record?

A—No, sir.

Q—Did you have that last night?

A—I had a copy of it.

Q—Did you have a copy of the whole of Mr. Sampson's records last night?

A—I had a copy of his means for 1879 and '80, but not of the whole record.



1592 Q—Then, when you made these calculations, you neither had this book that Mr. Dixon furnished, nor did you have a complete copy of the record at Visalia, or a complete copy of Mr. Sampson's record?

A—No, sir.

Q—Mr. Schuyler, what data did you base your calculations upon that you have now made and presented?

A—Upon the observations made by Mr. Dixon in 1879, and upon the relative humidity at Visalia. I have made two calculations and estimates.

Q—Will you please give the data that the first was based upon?

1593 A—Upon the observations of the loss of 53-100 of a foot in September, in the centre of the lake.

Q—Anything else?

A—And upon the records of the mean monthly humidity as observed at Visalia.

Q—Was that all that you took into consideration in making your estimates?

A—I had previously compared the temperature of the two places, and satisfied myself that the temperature here was as great or greater than that at Visalia.

Q—Did you have neither of these records with you?

1594 A—I didn't need to have them.

Q—I understood you only had the evaporation for a single month as given by Mr. Dixon?

A—That is all.

Q—And those were the observations taken by Mr. Dixon, given in this book—five observations?

A—Yes, sir.

Q—What was the second calculation or estimate that you made based upon?

A—Upon the mean of the observations made in the center of the lake and the side of the lake.

Q—And what else?

1595 A—And the relative humidity, also; the mean.

Q—What do you mean by saying you did not take into consideration the wind at all, in making these estimates?

A—I mean to say that the estimate was not increased, as it might have been reasonably, by reason of the fact that the winds were greater in other months than in September.

Q—But when you take into consideration the records of Mr. Dixon? He gives every time the fact that the winds were blowing one way or the other?

A—Yes, sir.



1596 Q—You must have taken into consideration the effect of the wind?

A—I had no record of the velocity of the wind. I did not take it into consideration at all.

Q—Had your estimates been based upon the fact that there had been no wind at all during this time, would the evaporation have been as great as you mention?

A—Certainly; the evaporation was observed. It was an actually observed quantity.

Q—Well, then, you did take into consideration the wind?

1597 A—I took into consideration the observed quantities; the loss by evaporation.

Q—Then you took into consideration the winds during those five observations that you made?

A—I did not increase the estimate by reason of the fact that there might have been heavier winds during other months than during this month.

Q—Then you consider the winds more in other months than they were in September?

A—Yes, sir.

1598 Q—Do you know as a fact, whether there was any difference in the wind in September and any other month here?

A—The records will show it at Visalia.

Q—(Interrupting.) I say, do you know anything about the fact, whether the winds are greater in any other month than in September?

A—Well, I know that they are heavier generally in other months.

Q—Had you any record at all to act upon as to the condition of the wind in those places, at any time, excepting September?

A—No, sir.

1599 Q—What was the area of the lakes where this pan was situated upon which you made your calculations. Kern Lake?

A—I don't recollect precisely, sir.

Q—Do you remember about the area of Kern Lake at that time?

A—At that time it was within its shores, within the line of tules. I mean to say, at that time, the water line was considerably within the line of tules.

Q—Do you remember what the area of Kern Lake was; about what it was?

A—I received from some parties, I cannot recollect



1600 who, an estimate that had been made from surveys made by Mr. Loring. I think, David Loring.

Q—Do you remember what that was, as to Kern Lake?

A—It was 7,000 or 8,000 acres if I recollect.

Q—What was the area of Buena Vista Lake at that time?

A—That I don't remember; 8 or 9,000, I think, perhaps 10,000.

Q—Do you remember what the elevation of those lakes was at that time?

1601 A—I have no data to give me the absolute elevation above the sea level. The water in the slough south of the head-gate at Cole's bridge, was 11.7 feet as I recollect below the top of the head-gate.

Q—You don't remember the elevation of the lakes at that time?

A—The elevation of the lakes above the sea level?

Q—Yes, sir.

A—It was somewhere between 285 and 290 feet. I don't know just the elevation.

Q—I understand these calculations of yours, is in vertical feet?

1602 A—Yes, sir, in vertical feet. The mean of evaporation. Deep water gives less evaporation. The difference is governed entirely by the difference in temperature of the water. I could not tell what the usual difference is. I recollect that in the experiments upon Kern Lake, the water was somewhat warmer at the shore than it was at the center. I'm arriving at this estimate from having the records of September. I did it by scaling. I scaled it by the relative humidity as given at Visalia. The evaporation for September was 53-100 of a foot.

Q—Then what would it be for the month of January of the same year?

1603 A—That would depend upon the mean relative humidity for the month. It would depend upon the ratio between the mean relative humidity for that month, and the mean relative humidity for September.

Q—What was that? You have made the estimate of it?

A—It would be 28-100 of a foot in January. That is the mean for the two years, 1879 and 1880. I have not carried out the calculation for the months during 1879 and '80, but have made calculations for the months of the mean of those two years.



1604 The relative humidity in January, 1879, was 73. In 1880, it was 80.5. The relative humidity in the month in which the observation was taken, was 42.9, to which the evaporation corresponding was 53-100 of a foot. The calculation was then made in the inverse ratio to the relative humidity; there being no evaporation when the humidity is 100.

Q—That was in January, was it?

A—That was in January.

Q—What was it in February?

A—69.3 in 1879, and 70.3 in 1880. In March it was 59.2 in 1879, and 63.3 in 1880. In April it was 66.6 in 1879, and 70.9 in 1880. In May it was 45.1 in 1879, and 50.6 in 1880. In June, 1879, it was 33.3; June, 1880, 36.4. In July it was 33.3 in 1879, and 41.6 in 1880. In August it was 31. in 1879, and 38.1 in 1880. In September it was 42.9 in 1879, and 41.1 in 1880. In October it was 59.1 in 1879, and 54.7 in 1880. In November it was 71.8 in 1879, and 58.8 in 1880. In December, 80.8 in 1879, and 81.3 in 1880.

Q—What is the mean teperature during those months?

A—January, 1879, 43.7; 42.4 in 1880.

February, 54.5 in 1879; 45.8 in 1880.

1606 March, 60.1 in 1879; 49.4 in 1880.

April, 62. in 1879; 57.3 in 1880.

May, 64.6 in 1879; 65.8 in 1880.

June, 78.5 in 1879; 74.8 in 1880.

July, 81.2 in 1879; 80.8 in 1880.

August, 83.5 in 1879; 77.8 in 1880.

September, 74.7 in 1879; 73.8 in 1880.

October, 60.2 in 1879; 61.2 in 1880.

November, 49.5 in 1879; 46.7 in 1880.

December, 44.9 in 1879; 49.9 in 1880.

The yearly mean is 63.1 for 1879, and 60.5 for 1880.

The yearly mean of humidity in 1879; was 54.6 in 1880 57.3

1607 Q—I undrstand you to say there was no record of the humidity kept in this county at all?

A—Not that I know of.

Q—You had none for making the calculations?

A—No, sir. The humidity of the atmosphere is determined by the hydrometer. I don't know of any way of determining it except by such instrument. I determined it by reason and analogy; by comparison of the records kept at Sumner and those at Visalia. The only record of humidity I had was at Visalia.

Q—You say reasoning by analogy, and you had simply



1608 the record of Mr. Sampson to make the comparison by?

A—And the record at Bellevue Ranch. This I have called off is the record of Visalia, and I compared the temperature with those two years shown by the record of Mr. Sampson with this kept in Visalia. The comparison showed that the temperature was slightly higher here than it was in Visalia.

Q—You had no comparative table as to wind?

A—No, sir. I noticed that the rainfall is greater in Visalia than here.

1609 Q—Did you make a comparison of the rainfall of 1879 and '80 here and at Visalia?

A—I examined them both.

Q—Did you take that into the calculation at all?

1610 A—It was not an element in the calculation at all. It was not an element in the calculation. I did not entertain it to any great extent. If it had been taken into consideration, the estimate would have been much larger. I placed one of the pans in position on the lake; assisted Mr. Dixon in doing that. I did not place the other in position. I never saw the other pan while it was in position. I never saw the first one after I placed it in position. The records of evaporation in these pans, which I have used here, is the record which belongs to the engineer's office. I brought it here from my office. I let Mr. Dixon have it, and when I wanted it, I called upon him for it.

Q—When did you say you took this trip with Mr. Wyble across the slough?

1611 A—I think it was in February, 1879, I left from his headquarters to make that trip. I don't remember whether Mr. Wible drove me from town down to his headquarters before that or not. I stopped at his house one or two nights about that time. I was with Mr. Wible and his team when he was making his trip. I was returning from a trip down the canal. We were returning to the house from the trip I speak of; returning to his headquarters. We had been down to the end of the canal. We had crossed this slough, and then went back again to his headquarters. I don't recollect that I went anywhere with him after that trip.

Q—Did he take you on that trip through the lakes at at that time?

A—Yes, sir. Mr. Livermore, and Mr. Wible, and two other men, I don't know who they were, went with me. Mr. Milo, I think, was one of them. I think we were



1612 from 5 o'clock in the morning to 6 o'clock in the evening making that trip to the lakes. When we were on the trips along the lakes, taking the soundings, we did not get out into the center, I think. I was down here at that time in my official capacity as Deputy State Engineer.

Q—Will you give me all of the conversation that took place between yourself and Mr. Wible during that trip that you speak of?

A—I could not possibly do that.

Q—Then can you give me the substance of it?

A—No, sir.

Q—Do you remember anything about the conversation?

1613

A—It was a general conversation about the whole country there, and the working of the canal, etc. The country was new to me, and I was asking questions about it of all sorts; getting information about it; trying to get all the information I could in regard to the character of the country. We canvassed the question of the construction of the canal on the way down, and about the passage of the water through it. We crossed over the swamp lands. Mr. Wible pointed out to me that they were a very beautiful body of lands, very level, etc. I agreed with him, and that they were easily irrigated, on account of their gentle slope and flatness.

1614

Q—How does it happen that you remember so well the remarks about this slough?

A—It was the first information that I had had of the fact that the slough did not run clear through. All of the maps that I had seen showed a stream clear through the swamp. That fixes it in my memory, because I had never heard it intimated before that the slough was broken anywhere. I don't know as he used the term that there was a blind channel there.

Q—You testified yesterday that he used the term that there was a blind channel there?

1615

A—Well, that is my impression; that is my recollection of it.

Q—Would you swear that he said anything of that kind?

A—To the best of my recollection.

Q—You remember that, do you?

A—I think so; I have thought of that conversation frequently.

Q—When did you first call the attention of the defendants to that remark?

A—I think it was something—I mentioned the fact



1616 and discussed it with the engineers at the ranch about that time. I don't recollect who was present. My impression was that I had a conversation with Mr. James in regard to it.

Q—When did you again mention it to them?

1617 A—I suppose, about two weeks ago; somewhere about that time. I was stopping at the Bellevue ranch in 1879, when I spoke to them about it. I stopped there over night occasionally when I went there. I didn't make that my headquarters. I stopped there in 1879, when I was working in that vicinity, on account of its being a convenient place to stop. I stopped there four or five days the first time. I was down here in 1879. I was down in my official capacity, and I was gauging all of the canals in the country. Perhaps I stopped at that place while I was down here then two weeks altogether, making quite a number of visits, half a dozen times or more. I don't think I was there at all during 1880.

Q—How in 1881?

1618 A—I have been stopping there for the last four weeks; since this trial has been in progress. I came there on the 15th day of April; not before that. I have been there ever since. During all of this time I have been the guest of those people, and am still their guest.

Q—Have you received any compensation for your services in this case?

A—No, sir.

Q—Are you to receive any?

A—I suppose I will be entitled to receive the compensation of an ordinary witness.

Q—Haven't you an arrangement by which you will receive something more than an ordinary witness?

A—No, sir.

Q—Don't you expect to receive something more than the fees of an ordinary witness?

1619 A—I know that I would not be put to the trouble to come down here for the pay of an ordinary witness.

Q—You would not?

A—No, sir.

Q—How are you able to leave your duties as Deputy State Engineer, to come down here and remain over a month?

A—Well, I came down here expecting to stay here two or three days, and the trial has dragged on from time to time.

Q—How is it that you have been able to stay here a month, and to leave your official duties in Sacramento?



1620 A—Just at this particular time there is not a great deal of field work going on, and the office work has been pretty well finished up. But there is something to be done there. I am not able to leave them. I ought to have been back there, and should have been back long ago. I would not have come here at all if I had supposed the trial would have dragged out the length of time that it has.

Q—When you came down here, what records did you bring with you from your office?

1621 A—I brought the records of the discharge of rivers, canals and gaugings made there. I brought the original records with me; the original record of the discharge of the river and the canals. And these were the original records we had in Court the other day, and the original calculation of the discharge.

Q—Is that the original report that was made?

A—That was an original calculation upon which the report was made.

Q—Have you the original records of the discharge of these canals during 1879 and '80?

1622 A—I have the original calculations here with me, and I have the records kept by Mr. Dixon of the discharge of the water in the canals. I did not bring it up with me to-day. It is down at the ranch.

Q—Have you the record of the discharge kept by Mr. Barker with you, at the Rio Bravo ranch.

A—Yes, sir, with the other books. I have them with me. They are down at the ranch. I brought some of my notes in regard to the general information gathered here on the subject of irrigation, and I have those with me, too. I have the gauge record kept by Mr. Barker during the past year. It is down at the ranch.

Q—Who told you to bring those records down here?

1623 A—I brought them down voluntarily.

Q—Were you not instructed to bring any records with you?

A—No, sir.

Q—Nothing said about it? Who requested you to come here?

A—Mr. Haggin.

Q—Didn't he say anything to you about what he wanted to prove?

A—He gave me no idea of the character of notes he wanted, and I went to the office and gathered up such as I supposed would have a bearing upon the case, when I understood what it was.



1624 Q—You gathered up pretty generally everything that was there relative to those things, didn't you?

A—No, sir. I have found since I have come down here, that I have left several of the notes behind. On the 11th of this month I was here, I think. I have not been here all of the time since Monday.

Q—Where were you the day after you were examined?

A—I went to Visalia.

Q—You went there to get this man to bring these records with you, to bring these records here with you?

1625 A—I went there and compared the records and made my calculations, &c., with the original record.

Q—Did the man that brought the records up here, come with you?

A—He came down with me.

Q—At whose suggestion did you go there? Mr. Haggins's?

A—Mr. Garber, I think, suggested it.

Q—Did you procure the first copy that you had from him, or the summary that was introduced in evidence when you were on the stand?

A—Yes, sir.

1626 Q—How did you get that?

A—I wrote for it.

Q—Did you procure the record of Mr. Sampson which you used?

A—Yes, sir.

Q—Then all of the information which you have had to pass upon the question as an expert, you have obtained yourself?

A—Yes, sir.

Q—How long have you been—during what length of time have you been in Visalia, taking all the time you have been there together? You do not live there?

1627 A—No, sir. I was there first in June of last year; last June. That is the first time I was ever there. I was there a couple of days.

Q—When were you there again?

A—I was there this week.

Q—Is that the only time you have ever been to Visalia?

A—Yes, sir.

Q—And that is all your knowledge of the climate of Visalia?

A—Yes, sir, and all of my knowledge as to the humidity of the atmosphere and temperature of that climate,



1628 is three or four days. I received my education as an engineer in New York, between 1860 and '70. I have the books that you have called for down at the ranch, and I will send down for them.

Mr. HAGGIN—Mr. Schuyler has to send out for the records he has there. He is anxious to get away to-night. If any other witness is put on, this examination may be suspended until the records come.

THE WITNESS—I have been Deputy State Engineer since 1878. I am still Assistant State Engineer.

1629

A. C. MAUDE,

A witness for the defendants, being duly sworn, testifies

I reside in Bakersfield. I have lived in Kern county since July, 1873. I have lived here all of the time since then, except several months I was in San Francisco, in 1876. When I first came here I bought a ranch of a man named Lightner, on the island, in July, 1873, and went to farming. It was on Section 6, T. 30, R. 27; the northwest quarter, right on New River, near the bridge there, now on the south side. I put in a crop there in the year 1630 1873, and had water for irrigating. I got my water from the Plunkett ditch. The Plunkett ditch is taken out on Section 33, T. 29, R. 27. The tracing on Map I of that ditch is substantially correct. The head-gate was 14 feet wide, and the ditch was 12 feet wide on the bottom, and it was two or three feet deep. I commenced using water out of that ditch in the Spring of 1874. Mr. Plunkett, Mr. Nelson and Mr. Quirk were also using water out of that ditch in 1874 for irrigating. That ditch has been used ever since for irrigating purposes, and it was in use when I went there. I had an interest in the ditch—a 1631 1-5th interest. I bought it with the ranch. There were five owners in the ditch at that time. We claimed under an appropriation. That ditch has been used ever since. And, living there, I had occasion frequently to come to Bakersfield. New River ran through my place. My place was opposite the Pioneer Canal, which was on the north side of the river. In coming to Bakersfield, I crossed the Plunkett ditch, the James ditch, the Buena Vista Slough ditch, and Old River. In speaking of the Buena Vista Slough ditch, I mean the natural slough; the ditch was not then constructed. I crossed these streams in 1873, 1874 and 1875. There



1632 was water then in Buena Vista Slough; a pretty good stream; but I didn't measure it. I know the present Buena Vista ditch. The slough carried more water than the ditch and ran faster, and it was wider. I crossed Old River before the Anderson bridge was put in, and noticed the stage of water in the river at all seasons, in 1873, '74 and '75.

Q—Before the bridge was built, did you have any difficulty in crossing there?

1633 A—Yes, sir; we used to have, I would notice, by New River when the water was high, and I would go around by Stine's, about four miles, because the river was wider at Stine's—twice as wide—and there was less danger in crossing.

Q—Did you have occasion to notice the volume of water at different times carried by Old and New River?

A—Yes, sir, because I lived on New River, and frequently crossed Old River.

Q—In the ordinary stages of water, with a good, strong flow of water, say that Old River was well up the banks, nearly full, what would be the proportion of water between that and New River?

1634 A—Well, I think there would be more down New River in high water. The water receded first in New River. There used to be a larger stream in Old River than there was in New River. I had occasion to notice this particularly. We used to have to go and turn the water into our ditch by a wing-dam. I have seen New River when it was low, with no water in it at all, you might say; and I have compared the water in Old River with that in New. I have seen it just reach down to my place—small streams—and a good current in Old River—a pretty good head of water. I know the Calloway Canal. I first heard of it on the streets. I saw Mr. Calloway and Mr. Burcham, and two or three others, in  
1635 general conversations, that it was going to take all of the water out of the river. That was the street talk at the time. That was in the spring of 1875. During that time I was up along the river—the head of the Calloway Canal. I went up there frequently, because I wanted to take a ditch out myself. I did locate one. I saw the notice of the Calloway. It was posted above the railroad bridge, perhaps 100 yards; something like that.

Q—What time did you see that notice?

Mr. HOUGHTON—This, of course, if your Honor please, is subject to the same objection we made yesterday.



1636 The COURT—Yes, sir.

The WITNESS—And I saw it on the 7th day of May, 1875. What makes me remember that was this: that the Sumner depot burned down the night of the sixth. I saw the fire the night before. The day after that I was up there and saw it. I wanted to see it anyway. Perhaps it was one hundred yards above the railroad bridge. If I remember exactly I read it. I felt an interest in it at that time, as I wanted to know about it, as I was thinking of irrigating land from it, that I owned on that side. I remember some of the names that were on that notice. I remember Gov. Holden and Mr. Calloway, and a man named Wilkinson. I thought it was this man Wilkinson in town. I found afterwards it was not. A man named Putnam, a real estate man in San Francisco. I cannot think of any more now. I know a man named Burcham. His name was attached to it. He had told me the notice was up. I don't know what has become of that notice. I think I saw it but once, in May, 1875, the 7th of May; it was written on paper, and exposed to the atmosphere: it was tacked to a board, I think—some kind of a board; maybe a couple of stakes, or something of that kind.

1637 Q—Have you any recollection of the substance of the notice?

A—Yes, sir; I saw that it would take out—

Q—[Interrupting.] State as near as you can what you remember about it, if you can remember the contents. Do you remember anything about the amount of water they proposed to take out—that is, as near as you can remember the substance of it?

A—It was 74,000 inches of water. I was anxious to know how much it was, and I remember reading it—74,000 inches. I remember the size of it was 120 feet wide on the bottom, and it was taken out of the McCaffrey slough. That slough was to be used, and there were other conditions in the notice about commercial purposes, enlargements, and milling purposes.

1639 Q—Was there anything said about the direction of it?

A—Yes, sir; it said it was to be run, I think, in the direction of Tulare Lake. Something about Tulare Lake in it.

Q—Do you remember any other circumstances about it?

A—It said, to be under a 4-inch pressure, I think, or something of that kind, I remember.



1640 Q—Mr. Maude, could you recognize a copy of this notice if you were to see it?

A—I think I would.

Mr. HOUGHTON. One moment: have you given all the facts that you can remember about the contents of that notice?

A—Yes, sir; all that I can call to mind now.

Q—How long were you where that notice was posted?

A—Just time to read it, perhaps; an hour in the vicinity of it. That is all. I never saw it afterwards; I just saw it that once.

Q—Have you never seen that notice since?

1641 A—I have seen the book.

Q—When?

A—Two or three days ago; 5 days—4 days.

Q—Did you then read the notice?

A—Yes, sir; I have not seen it this morning.

Q—For what purpose have you seen the book?

A—To bring this to my memory.

Q—To refresh your memory in regard to these things?

A—Yes, sir.

1642 Q—Would you have remembered these facts that you have testified to, had you not consulted that four or five days ago?

A—I remember that very well. I think I might state some other facts that were stated in that notice. It was posted above the Railroad Bridge, 100 steps, if I recollect right; posted on a board, fixed on a tree; a very old stem of a tree, broken down. My recollection of the width is that it was 120 feet on the bottom; I am sure of that; that was stated in the notice that I read on the tree.

Q—Did it state where the water was taken out?

1643 A—On Sec. 13, Township 29 South, Range 27. I would have remembered that if I had not seen the notice a few days ago. I would have remembered it from that, and the general knowledge I have of the land in that neighborhood. I would have remembered that the notice contained that fact, without consulting this notice the other day. It has been continuously before my eyes, because it has been on the maps, and I remember it very well. I think I remembered what section it was on when I took it; because I knew it. I noticed that statement in the notice; and I did not in the book when I referred to it the other day.

Q—Do you remember whether anything was stated in that notice as to the depth of the canal?



1644 A—Four feet is my recollection.

Q—Do you remember whether there was anything stated about the slope?

A—Yes, sir; it said something about the width at the top; but I forget the width. It gave the width of the canal at the top. I don't remember what the width was. It was more than 120 feet. No; I don't think it contained that. I don't remember. It contained nothing about the slope.

Q—Do you remember what course or direction was contained in that notice?

1645 A—My recollection is that it was in a northwesterly direction towards Tulare Lake; something about Tulare Lake. That is all that I remember. I don't think the length of the canal was given in that notice. I don't remember anything about that. However, it may have been. I don't remember the fact. I am not sure the width of the canal at the top was given. There was something about either the slope or the width; I forget which. I know there was some difference between the top and bottom, but I don't remember what it was. I am sure about the point of diversion and as to where I saw the notice posted, and as to the date. I am positive as to the number of inches they were to take, as to the width of the canal on the bottom, and am sure of that, and as to the course also.

1646 Q—Do you remember for what purposes it was to be taken out?

A—For irrigating, milling, and some others.

Q—You remember all of these facts without having consulted the notice at all?

A—Yes, sir.

Q—And they are fresh in your memory now?

A—Yes, sir.

1647 Mr. HOUGHTON—We object to this being shown to the witness. He remembers all of these facts without the aid of this paper at all.

Mr. FLOURNOY—I don't care to show it to him; I will offer the record in evidence.

Mr. HOUGHTON—We object, if the Court please, to the introduction of this record in evidence; first, the preliminary objections, on the ground that they have not accounted for the loss of the original; second, we object on the ground that we are riparian owners, and suing as riparian owners here, and this notice cannot in any manner affect the rights of the plaintiff in this



1648 case. Further, we object to the introduction of this in evidence, because it is not properly acknowledged or proven before recording, and therefore not entitled to be recorded; and therefore neither the record or a certified copy of it can be used in evidence; and we object to it generally, as irrelevant and immaterial.

Mr. FLOURNOY—I propose to read this record, according to the law I have had—I have not seen this before; I withdraw the record for the present, and offer the original, which has been recorded.

1649 Mr. HOUGHTON—We make the same objection to this notice that we made to the other—to the record—with the single exception, of course, of the accounting for the original notice.

The COURT—The objection is overruled.

Plaintiffs except.

Mr. FLOURNOY—We now offer this in evidence.

Mr. HOUGHTON—Let me look at that a moment [examining]. We make the further objection that all the signatures in this notice appear to have been made by one person, all in one handwriting.

Objection overruled.

Plaintiffs except.

1650 [The notice was then read in evidence, as follows:]

“ NOTICE.

1651 “ We the undersigned, claim the water flowing in  
 “ Kern River, Kern County, State of California, to the  
 “ extent of seventy-four thousand inches, measured  
 “ under a four-inch pressure, for irrigating, manufac-  
 “ turing, commercial and mining purposes, for use  
 “ along the route of the ditch or canal hereinafter de-  
 “ scribed. Said amount of water to be diverted from  
 “ said Kern River, at two certain points, to wit:  
 “ Point First: At a place on the right bank of said  
 “ river, about three hundred feet above the Southern  
 “ Pacific Railroad Bridge on said river, at the mouth  
 “ of the slough known as the ‘ McCaffrey Slough,’ in  
 “ Section 13, T. 29 S., R. 27 E., M. D. B. and M.,  
 “ which said slough and all the waters flowing therein  
 “ is and are hereby claimed by the undersigned for the  
 “ purpose of conveying said seventy-four thousand  
 “ inches of water, and claim the privilege of deepen-  
 “ ing, enlarging, and otherwise improving the same for  
 “ that purpose, in manner and form hereinafter set  
 “ forth.



- 1652 " Point Second: At a point on the right bank of  
 " said Kern River, one hundred and fifty feet below  
 " said Southern Pacific Railroad Bridge, to be taken  
 " out in a ditch sixty feet wide and four feet deep and  
 " about two hundred yards long, to convey water in and  
 " to the said first described slough, as a part and par-  
 " cel of the canal or ditch hereinafter described. Said  
 " water to be conveyed in a main ditch or canal in the  
 " said described 'McCaffrey Slough,' said slough to be  
 " enlarged, deepened and widened for that purpose one  
 " hundred and twenty feet on the bottom, and four feet  
 " deep, with a slope of one to one; commencing at the  
 1653 " point where the waters appropriated unite in said  
 " slough, about six hundred feet south and west of the  
 " said Southern Pacific Railroad Bridge, running  
 " thence in the bed of said slough, so enlarged and  
 " improved, in a south and west course, into Sec. 22, T.  
 " 29 S., R. 27 E., M. D. B. and M., to a point on said  
 " slough near a bluff, at a willow tree on the right bank  
 " of said slough, marked with a blaze facing the  
 " slough, bench mark on said tree being 4.<sup>45</sup>/<sub>100</sub> feet above  
 " surface of water in said slough, a distance of two miles  
 " and a half, more or less. Thence in a ditch or canal one  
 1654 " hundred feet wide and four feet deep, with a slope of  
 " one to one, in a southwesterly course, two miles and  
 " a half; thence in a northwesterly course to and into  
 " Tulare Lake, thirty miles, more or less.  
 " And the undersigned also claim all the rights of  
 " constructing all necessary head-gates, sluice-ways,  
 " and all and every privilege and use necessary, cus-  
 " tomary and lawful in the premises.  
 " Witness our hands, this 4th day of May, A.D. 1875.  
 " W. H. BAXTER, E. W. SCOTT,  
 " JUSTIN P. MOORE, J. A. ROBINSON,  
 " CHARLES F. BROWN, J. H. WILDES,  
 1655 " S. N. PUTNAM, O. P. CALLOWAY,  
 " ISAAC UPHAM, W. WILKINSON,  
 " WILLIAM HOLDEN, I. L. COBLEIGH,  
 " JAMES T. ISH, A. J. HAIGHT,  
 " L. L. BAKER. JOHN BURCHAM."

[After the notice was read in evidence, the defend-  
 ants commenced to read an affidavit which was attached  
 to the notice, and recorded with it.]

Mr. HOUGHTON—Do you offer that affidavit in evi-  
 dence?

Mr. HAGGIN—The whole thing is one paper. We  
 don't offer the affidavit; it is simply a part of this whole



1656 paper; the whole thing is one paper; we don't offer this paper as proving anything. I propose to read the endorsements on it, to show that the whole thing was recorded.

The COURT—I think the affidavit may be read, but not as proof in the case.

Mr HOUGHTON—We will have the benefit of an objection to its being read. We object to its being read, on the ground that it is irrelevant and immaterial.

Objection overruled. Plaintiff excepts.

Mr. HAGGIN—We read it as part of the paper, not as proving any fact contained in the affidavit.

1657 Reads as follows:

“ STATE OF CALIFORNIA, } ss.  
“ COUNTY OF KERN, }

1658 “ O. P. CALLOWAY, being duly sworn, deposes and says: That he is a white male citizen of the United States, and of the State of California; that he is a resident of the City and County of San Francisco, and of the age of twenty-one years; that on the 4th day of May, A. D. 1875, he posted two notices, of which the foregoing is a true and correct copy, at points on the right bank of Kern River, Kern County afresaid, in Section 13, T. 29 S., R. 27 E., M. D. B. and M., and more particularly designated as follows, namely: One at the mouth of the slough known as the “McCaffrey Slough,” three hundred feet above the Southern Pacific Rail Road Bridge; and one at a point on said Kern River one hundred and fifty feet below said Southern Pacific Rail Road Bridge, to secure the water and water privilege claimed, and more particularly set forth in said notice; and further saith not.

“ O. F. CALLOWAY.

1659 “ Subscribed and sworn before me this 4th day of May, A. D. 1875.

“ [SEAL.]

“ F. W. CRAIG, County Clerk.

“ [Endorsed:] Notice of water claim and privilege, W. H. Baxter et al.

“ Recorded at request of O. P. Calloway, May 4th, A. D. 1875, at 2 o'clock, P. M., in Book Volume One of Water Rights, pages 37, 38, 39.

“ [SEAL.]

“ F. W. CRAIG, Recorder.

“ Recorder's fee, \$4.

“ [Also endorsed on it.] Filed May 20, 1875.

“ GEO. SECKEL, Sec.”



- 1660 The WITNESS—I saw a good deal of work done on the Calloway Canal. The first time that I crossed the river and witnessed the work on the ditch was on the 28th of June, 1875, I went up to the Allen place, right on the corner, where the ditch comes out of the bluffs at Mr. Allen's place. There they had a camp and were scraping and digging something; three or four men were working there. That was the 28th of June, 1875. I don't remember that I saw them at any other times during the year 1875. I think I did, because I was out in that direction often afterwards. I am under the impression that I did; I saw the camp
- 1661 that was on the bluff, from a bluff, as we were going to my canal.

- I saw them at work there in December, 1876. I had just come back from the city; had been back a month or so. That was after I returned from San Francisco. They were at work on the ditch in December 1876. I was over there nearly the whole year during the year 1877. It was a very busy time with me over there, I think nearly every month in the year, at the time of the desert land excitement. I was then following the real estate business. I was there in January. I was over there a dozen or fifteen times in
- 1662 January. I was hunting up corners of land. I was there in February, I could not tell how many times; a good many times, though. I was over there frequently every month during the summer until July, and afterwards. When I went over I used to see the Calloway all on that side; I used to go as far as Poso Creek. I don't remember of ever being there without seeing parties at work on the Calloway.

- It is a plain over there, and you can see a great distance, and I saw the people at work there on the canal, and the surveyors out ahead of them. I saw them working with teams and scrapers. I have seen a large
- 1663 force out there sometimes, but I don't remember exactly how much. I never went near the canal, but I saw the people working on the canal, horses and men. I was probably over there twenty or thirty times every month, from January to July, 1877; I was there after July, on the same business; I don't think I went as often, though, after July as before. I was there two or three times a month, I should think, during August. There was no time over a month that I did not go there, during all of 1877. They were at work there in 1878; I was over there frequently in 1878, and saw



- 1664 them working, and I should judge by the progress of the canal that they were working all of the time it kept going along. I was in San Francisco in 1875, up to October or November; and I didn't see them at work during 1876, before December. I saw them frequently in 1878; I saw them frequently during the year, and in 1879, also in 1880. I was at the end of the ditch. From July, 1877, to the first of January, 1878, I judge it was a busy time with them. I think there were a great many teams there then; that is my recollection; and I observed the ditch making progress in 1878, up towards Lerdo, some place there. The ditch continued
- 1665 progressing in 1879. I have seen that canal extended beyond Poso Creek; I suppose it was 30 miles, about, in length—a very crooked canal. The teams that I saw were working on the construction of the canal.

## Cross-examination of

A. C. MAUDE.

- 1666 To Mr. HOUGHTON—When I moved on to my ranch in 1873, no water was running in the Plunkett canal; that canal was constructed in the fall of 1872 and spring of 1873; It had been constructed when I went there. I first saw water in the canal in the spring of 1874, pretty full head—well, two or three feet deep. I irrigated in 1874, 30 acres of land from that canal. Mr. Plunkett, I suppose, irrigated 20; and Mr. Nelson, 10 or 15, I think; and Mr. McQuirk, 20 or 30. That is all that I remember who irrigated that year. In 1875 I had probably 50 or 60 acres irrigated. Mr. Plunkett added to his 15, maybe 45 acres. Mr. Nelson had some 10 or 15 acres. Mr. McQuirk was using sufficient to irrigate 20 or 30 acres. There was
- 1667 more land brought under cultivation in the south-west quarter that year by men named Mellis (?), and McKenzie. They had, I presume, 20 or 30 acres. That is all that I remember in 1875. I don't know how much they irrigated from that canal in 1876. I was not there. I sold out in August, 1875. I have not been interested in the ditch since. The last time I saw the ditch was six months ago. I have seen it 15 or 20 times within the last two years. I never saw it dry since I sold it out, and I have crossed it half a dozen times in the last two years. And there has been water in it every time I crossed it. Neither Mr.



- 1668 Plunkett, Nelson or McQuirk live on the ditch now. They have all sold out. I had a homestead claim across the river in 1875, on the south-east quarter Section, 28, T. 29, R. 26. In going from my place to there, I used to cross New River at the same place, on Section 6, T. 30, R. 27, where the Pioneer Bridge is now. There was a regular crossing there. I went over to the Calloway at that time, because I had a survey made, to take out water myself, with parties by the name of Peck and Morris, and I thought we could get water from the Calloway. Mr. Calloway and Mr. Burcham told me, we could get it out cheaper that way,
- 1669 and I went up to see what they were doing. It was after Mr. Burcham told me this, that I went up and looked at this notice. I went up to see the Calloway with a view of taking the water from it, and I afterwards filed a notice for the Jones and Tuckey ditch; I proposed to take water from that ditch, and filed a notice on the 9th day of August, 1875, and gave up the idea of taking water out of the Calloway. I saw Mr. Calloway about the matter, two or three times. He bought some hay from me when he was working on the ditch. I did not afterwards build the Jones and Tuckey ditch. I had nothing to do with it, I abandoned it.
- 1670 I made up my mind after seeing them cutting into the bank that it was a big job, that I would have nothing to do with it, and I went and filed my notice. The first time I ever saw Mr. Calloway was in Bakersfield. I saw him only four or five times. I went to San Francisco in November, 1875; and I think I returned in October, 1876. The last time I was at the Calloway, that I remember of before I went to San Francisco, was the 28th of June. I was not there again until I came back in 1876. I went over there to see the Calloway Canal. I had heard that water was running out in the Calloway, on the plains. The water
- 1671 was not running out; but I saw where it had run out. I did not go to the head-gate, and don't know whether the head-gate was in or not. When I went to see this notice, I went up near where Mr. Donaldson lives, and crossed in down there; went along the bottom, and the water was very high. We had to go through some water, and that is where I saw it. It is higher up than the bridge, 100 steps or about that. In 1877, I was engaged in the real estate business, and had a great deal of work for homesteaders and pre-emptioners in the United States Land Office. That



- 1672 business took me over there. A great many timber claims and homestead claims, and for additional homesteads, were made over there. I was going there also in connection with desert land applications in 1877, January, February and March, and afterwards, during most of the year, for myself and some other parties. I made out papers for 50 or 75 people; timber claims and desert land notices. I don't know that I could remember them all. I made desert entries for the Viedel Brothers, two of them. That was Township 28, Range 26. I think that was in March, 1877. I was over there before the Desert Land Bill passed, in connection with
- 1673 desert land applications. I supposed the bill was going to pass, and I was looking out for additional homesteads. I prepared none of the applications filed for Haggin & Carr on these desert lands, and had nothing to do with them; in 1877 and '78, the same business took me over there—timber claims and pre-emption claims—inquiring about them for people to take up. They would come and ask me to go and find out a piece of land around the Calloway, where they could take it up, and some desert land applications; I have made such applications every year since.
- 1674 When I came back in 1876, I don't think the Calloway Canal had got out of T. 29, R. 27; was still in that township, pretty near the range line between 26 and 27. That is my recollection. The next year I suppose it must have gone several miles. I was not looking to see how far it did go. I simply saw the people working, as I rode over the country. I saw them from a distance, and close to them. I rode up to them frequently, and saw the camp moved from one place to another. I had no business in 1875 except farming; was farming all of the time in 1876, the northwest quarter of Sec. 6. I was not in the land business. My principal business
- 1675 now is real estate. I am manager also of the newspaper, the "Kern County Californian." Have been the manager about eighteen months, since December, 1879. I am also the proprietor of that paper, and have been such since the 10th of December, 1879. In 1875, when I went over to the Calloway, the parties were at work on this canal just where it gets to the bluff on Sec. 22. I don't know who had charge of the work that time. I do not know who had charge of the work in the latter part of 1876. I saw Richard Taylor out there in 1877; he was the engineer. I think Mr. Barker had a contract there in 1877. I saw Mr. Broad



1676 and Mr. Barker over there—W. H. Broad. I don't remember seeing them there in 1876. I never saw the Calloway notice but once; just on that occasion; I saw only one notice, and I never saw the one that was posted since.

W. J. CANFIELD,

Being recalled for the defendant, testified:

I reside upon Section 34, Township 30 South, Range 26 East, in Kern County; I am a stock-raiser; I do  
1677 some farming and irrigating. We get our water to irrigate through the Buena Vista Ditch, or Canal. I used water from that canal in 1874. I don't know when the canal was constructed, but I have been crossing that stream of water ever since it was constructed; I mean the stream which we call the Cottonwood Slough. It was afterwards named \_\_\_\_\_, in which the water was carried into what they called Buena Vista Canal.

Q—Is that Buena Vista Canal Slough?

A—Yes, sir; I think so.

Q—When did you first know of water being used from there?

1678 A—I think in 1867 from that slough. I think I have known of water being used from the same slough every year since 1867. I knew it about 1871 and 1872, and it was being used then. A gentleman named Woolton used it in 1871; and the parties below his place, the place which I now occupy, there was land being irrigated there in 1871.

Q—How much land was under irrigation from that slough in 1871?

A—I should say that there was 500 acres of grain. Oalton, for one, had about 250 acres, and parties below him had about the same number of acres, I think.  
1679 These parties this side probably had as much more. I don't know; it is very indefinite.

Q—How much, to the best of your recollection? Do you mean that altogether there were about 1,000 acres?

A—I should think so.

Q—The water being used from this Buena Vista Canal Slough?

A—Yes, sir.

Q—When you first knew that slough or ditch, when you first knew it in 1867, you speak of the canal being constructed; do you know in what year the canal was constructed?



1680 A—I don't know that I can state exactly the year; about 1870 or 1871. I was not interested in it, and I am not certain.

Q—Are you speaking of the present canal now?

A—No, sir.

Q—I am asking you of the present canal?

A—That, I think, was constructed in 1874.

Q—Prior to the construction of that canal, was there much water in the slough?

A—Yes, sir; there was water.

Q—How did the quantity of water which was turned into the canal after 1874 compare with the amount that  
1681 was turned into the old slough?

A—There was probably as much running in the old slough as there was in the canal ever since.

Q—When the water was turned in the old slough at any particular time, how much water would be turned in there, or be run into the old slough, compared with the water which would be running in the canal, that was before used at any particular time? What I want to get at is this: when each or either was in use, how would the quantity in them compare, the one with the other?

A—I think it took fully as much or more water to  
1682 supply the needs of the farmers below, running out through the old slough, than was required in the canal. The old slough was not a very good channel, it was obstructed somewhat by grass and willows, and it spread out in some places wider than it was necessary. It was like the old channels generally found in this country in that respect.

Q—When the water was running in the channel was it low, just to run down in the natural channel?

A—The most of the way; and part of the way there was a channel constructed.

Q—You say you began using water in 1874; have  
1683 you continued to use water from that time on?

A—Yes, sir; every year to the present day, from the same ditch. I first knew Old River in 1864. The water was running there then. I think I testified on my direct-examination that that was the channel in Kern River at that time. I knew Old River after the formation of New River.

Q—How long in your recollection was Old River the main channel of Kern River?

A—Until '67 and '68.



1684 Q—And until after '67 and '68 did it still continue to carry water?

A—Yes, sir, it carried some water after that. I have known Old River in the years 1871, 1872 and 1873. It was carrying water through those years. New River was carrying water during those years.

Q—Did you, in those years, cross Old River?

A—Yes, sir. I crossed it at various places. At Stine's crossing, and at the bridge, I have had some difficulty in crossing Old River at times when the water was very high. I have crossed it at all stages. I don't think I ever crossed when it was swimming, because I never attempt those crossings when the water is swimming if I can help it, but there was a great deal of water going down, and the bed of the river was very uncertain and boggy. I have seen the time when I wouldn't attempt to cross it.

Q—When was that?

A—I can't recollect at present the time or dates.

Q—During those years what portion of the water of Kern River do you suppose ran down Old River in ordinary times?

A—It is very difficult for me to decide. At different stages of the water and the river above, undoubtedly the most of the water would go down on the north side, through the channel of New River.

Q—At ordinary stages of the water, how would it be?

A—At ordinary stages of water, when it was easily fordable, I think as much went down the Old River as the New. I might be mistaken in regard to it.

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Cross-examination of

W. J. CANFIELD.

1687 Mr. HOUGHTON—Q—How often did you cross New River during high water, during the years 1871, 1872 and 1873?

A—Well, probably, 2 or 3 times. I don't know exactly, but I should judge 2 or 3 times during the season in high water, perhaps not when it was at the highest, because, as I was saying, I never attempt those streams when I think they are swimming, and I know they are swimming. I never crossed when they were swimming.



1688 Q—How long did New River, during ordinary high season, continue in a condition where the water was swimming, at Tracy's crossing say, during the years 1871, 1872 and 1873?

A—Maybe a month or so. I don't know, it is difficult to say.

Q—During that time you never would attempt to cross there?

A—No, sir.

Q—You, in fact, didn't cross New River very often during those years, did you?

A—Not very often. I didn't have occasion to cross 1689 it.

Q—Your business would bring you this way rather than take you the other?

A—In the latter part of the season, when my cattle were ranging on this side of Old River, I crossed very frequently, in fact, during the year 1871, I think the water dried up entirely, and in 1872, perhaps.

Q—In both rivers?

A—In that river particularly.

Q—How was it in Old River?

A—I don't recollect Old River. The Buena Vista Canal Slough takes its water from New River. It is a 1690 natural channel.

Q—Where would the water run that runs from that slough, where would it empty?

A—Into the Buena Vista Lake.

Q—I understand you to say that in 1871 there was a thousand acres of land irrigated from that slough?

A—I think there was. That would be a rough estimate.

Q—How much is there irrigated from the Buena Vista Canal now.

A—I am not able to say. The most of the land irrigated by that canal is the land belonging to Haggin & Carr. I don't know how much they have. 1691

Q—You spoke of the canal having been made in 1870 or 1871, what canal was that?

A—That was a canal constructed by a party, Mr. Barnes, John Oulton. I knew of the organization of it. It was called the Buena Vista Irrigation Co., that was constructed by farmers down there. I don't recollect how wide it was, although I have seen it. The fact is it took the old slough for most of the distance, rather what was called the Cottonwood or the Buena



1692 Vista Canal slough; for most of the distance and for part of the way it was constructed by the Company, and was perhaps 20 feet wide on the bottom and had sloping banks.

Q—When was that canal enlarged?

A—That canal was enlarged, or rather reconstructed, in 1874 or 5. I said a few moments ago that I thought it was in 1874; I think now, upon reconsideration, it might have been 1875.

Q—Who reconstructed that canal?

A—The owners of the original stock of the Buena Vista Canal Company. There was an arrangement  
1693 made with Haggin & Carr to do the work generally, but all of the stockholders had the privilege of putting in time and working out their assessments, and putting in their necessary expense in the way of labor.

Q—Was it not made under an arrangement to give Haggin & Carr control of the canal?

A—No, sir, they have control of that canal to-day, I think, but at that time they had not. They didn't acquire it under that arrangement. They afterwards procured a majority of the stock. I am the President of that Canal Company.

Q—How much land is there irrigated from that canal now? Outside of what Haggin & Carr irrigate  
1694 from it?

A—I cannot give any intelligent answer to that, all the parties below Haggin & Carr are using the water more or less for irrigating grass land and grain land.

Q—How much is irrigated for grain there outside of Haggin & Carr?

A—There is a very small quantity of grain irrigated or raised. I don't think this year more than 200 acres. There is a great deal of alfalfa, but they don't generally irrigate that.

Q—Then, as a fact, Haggin & Carr use nearly all of  
1695 the water that runs in that canal?

A—Yes, sir; for irrigating grain.

Q—Don't they consume nearly all the water which runs in that canal?

A—Much the larger portion.

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J. D. SCHUYLER.

Recalled for further re-cross-examination, testified:

Mr. HOUGHTON—Q—Have you got the books with you that I called for?



1696 A—Yes, sir (witness produces them); I have the record-book kept by Mr. Dixon, of the flow of water in the river, and other data, for the years 1879 and 1880. They are the originals made by Mr. Dixon. I have not the books for 1881. These books were kept by Mr. Dixon. He was employed by me in connection with the State Engineer's office.

Q—This, I understand, is the book kept by Mr. Dixon while in your employment in connection with the records of water running in Kern River?

A—Yes, sir; and the canals—sent by him to my office at Sacramento, and on file in the archives of  
1697 that office; and of record there. I have also six or seven books kept by Mr. Dixon for the year 1879, and also the eight books kept by Mr. Dixon for the year 1880, in connection with the same purpose.

(To Mr. GARBER)—I know nothing about the correctness of these books at all. I did not take the observations or make the entries in the book. I know nothing about their correctness, except that I believe them to be correct. The man was employed by me, and I have no reason to doubt it. I did not take the observations or make the entries.

(To Mr. HOUGHTON)—It was L. L. Dixon who kept  
1698 these books. I have also the records of the gauge readings at the Rio Bravo Ranch, kept by Mr. Barker, for the year 1879. These belong to the archives of my office. I have the records also kept by Mr. Barker for the year 1880, and they come down to May of this year—down to the present time. I received this from Mr. Barker a short time since. I think it was last time I went up there and got the record. Mr. Barker's daughters kept that record. I was so informed. There are also a couple of level-books of various canals about here. Those are my own notes. And  
1699 these belong to the State Engineers also. I made the entries in these myself at the time of the survey in 1879. The entries were all made at the time of the observations. I have other books pertaining to the flow of water in the river, kept by myself in 1879, and certain gaugings made by myself. The entries of those were made at the time I made the observations. I have other books here of the guagings of Kern River and canals for 1880, kept by J. Harrison Smith. I think he is in San Joaquin county. Mr. Smith was an assistant of mine at that time. I know nothing



1700 about the correctness of these books. The books kept by Mr. Smith are numbered 1, 2 and 3, and each of them have the name of Mr. Smith on the cover. I have also a couple of books of general notes kept by myself. Here is also a book of statistics of the lands irrigated by the various canals in 1880. That was kept by L. L. Dixon. That is a part of the record of my office. He was in the employment of the office at that time. The book is marked "1880. Irrigation Statistics, Kern Co., L. L. Dixon." I have with me the calculations of the discharge of the river and the canals. This is the record (showing).

1701 Mr. GARBER—I object to that as not cross-examination.

The COURT—I understand that Mr. Houghton has made the witness his own.

Mr. GARBER—Then I object, that he cannot interrupt our case for that purpose.

Mr. HOUGHTON—Of course, the objection is well taken, and we shall have to keep Mr. Schuyler here until we reach our case.

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1702 Re-direct examination of

J. D. SCHUYLER.

Mr. HAGGIN—Q—You stated that in making some estimates you had the table of mean humidity for several months, from the Visalia records?

A—Yes, sir; I have compared that paper with the original records at Visalia, of the United States service, and I know that this is a correct copy.

Q—You said that, in your observations here on the lakes, of the evaporation, that in your subsequent calculations and estimates you did not take into consideration the winds of this county. Did you, from your experience here, know whether or not the winds during the month of September were greater or less than is usual here?

1703 A—I paid no special attention to it. I was not in the county at the time, and knew nothing about it. The first time I was here was in January. I remained through January and February, until the 13th March. At that time the wind was rather heavier than it was in the summer, when I came here later. I was here



1704 again during June and July. Mr. Dixon was with me when I put these evaporation pans in the lake.

Q—The pan that you exposed to the wind, was there any obstruction to the wind getting at it?

A—They were exposed. There was a slight barrier put about it to keep the waves out, 12 or 14 inches—boards nailed together and set on edge—floating in the water and held in position by stakes near the pan, setting six or eight inches above the surface of the water.

Q. You referred to some observations as to temperature made by Mr. Crusoe. Did you take those observations, or were they an element in your calculation as to the amount of evaporation here? Did you make any calculation based upon these observations?

A—Not entirely; no, sir. The only use I made of any of the records in this county, or anywhere else, of the temperature, is to satisfy myself that the temperature here was as high as it was where we had the record of humidity. I satisfied myself that the temperature was as high here as it was in Visalia. Then I took the Visalia records to make my calculation.

Q—Then I understand you Mr. Crusoe's observations were no part of it, and did not enter into these calculations? That they were outside matters?

A—The scale of evaporation through the year was not based upon any evaporation record in this county.

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L. L. DIXON.

A witness for the defendant, being duly sworn, testifies:

To Mr. HAGGIN—I have resided in this county since 1874.

Q.—Have you been an assistant, or in the employ of the State Engineer's Department, or of Mr. Schuyler, who has just testified?

A—Yes, sir.

Q—Did you make any observations as to the evaporation on Kern or Buena Vista Lake for Mr. Schuyler?

A—I did on Kern Lake, about the last of August, 1879.

Q—Did you keep any record or memorandum of those observations?



- 1708 A—No, sir; I sent Mr. Schuyler all that I took.  
 Q—You made memorandum of them at the time?  
 A—Yes, sir.  
 Q—Can you tell me what those observations were?  
 A—I had a gauge-rod in there and an evaporating pan.  
 Q—Can you tell me what the observations were yourself?  
 A—I can't tell you the amount. I took the temperature of the water—of the air, the water in the pan and the water in the lake. I can't tell you what each particular observation was exactly without the notes.
- 1709 Q—Are these the notes which you took (showing)?  
 A—Yes, sir; they are the notes which I furnished Mr. Schuyler. They are all the notes I took in that observation of evaporation.  
 Q—Were they made at the time you made those notes—did you make your observations correctly?  
 A—Yes, sir; this book I had along with me, and put them down. Those are the original notes that I made.  
 Mr. HOUGHTON—Q—Did you make those notes at the time you made the observations?  
 A—Yes, sir, all of them; there are none of the notes on Kern Lake that I didn't put down at the
- 1710 time when I took the observation.  
 Q—Are those all of the figures and data made at that time as they appear on those?  
 A—All of those in lead-pencil are mine.  
 Q—What about the others?  
 A—The calculations Mr. Schuyler made himself. I had nothing to do with those—that is, the ink part of it. What is in pencil is mine. This in Kern Lake is mine.
- 1711 Mr. HAGGIN—Q—Will you state what these memoranda are that you made? Read them from the book exactly as they are there—giving the reading so that it can be intelligible—all this work?  
 A—There is some there on this page (showing). I will give the first readings I took on the margin of the lake.  
 Q—That is the first thing you did, was it?  
 A—Yes, sir; I had a pan in the center and one on the margin of the lake.  
 Q—Will you read, first, the pan at the margin of the lake, which is the one on the first page?  
 A—It is the pan at the margin: August 30, 10:40



1712 A. M. Water in the pan was  $88^{\circ}$ ; in the lake,  $86^{\circ}$ ; in the air,  $90^{\circ}$ ; loss in fractions of a foot, 0.480.

Sept. 5, 11:10 A. M. Water in the pan was  $79^{\circ}$ ; in the lake,  $83^{\circ}$ ; in the air,  $90^{\circ}$ . loss, 0.201.

Sept. 13, at 12 M., the water in the pan was  $80^{\circ}$ ; in the lake,  $90^{\circ}$ ; and the air,  $118^{\circ}$ ; loss, 0.195.

Sept. 19th, 12 M. Water in the pan,  $81^{\circ}$ ; in the lake,  $89^{\circ}$ ; in the air,  $120^{\circ}$ ; loss, 0.156.

Sept. 29th, 12 M. Water in the pan,  $76^{\circ}$ ; in the lake,  $80^{\circ}$ ; in the air,  $88^{\circ}$ ; loss, 0.189.

Q—Now, will you give me the pan in the center of the lake?

1713 A—"August 30, 10:40 A. M. I set the pan in the the center of the lake, and it was set at zero and filled up.

"Sept. 5th, was the first reading, 11:30 A. M. Temperature of water in the pan,  $89^{\circ}$ ; in the lake,  $81^{\circ}$ ; air,  $90^{\circ}$ ; loss, 0.105; northwest wind."

Sept. 13th, 12:30 P. M. Water in pan,  $86^{\circ}$ ; in the lake,  $86^{\circ}$ ; in the air,  $118^{\circ}$ ; loss was 0.096; northwest wind blowing.

Sept. 19th, 12:05 P. M. Water in the pan,  $86^{\circ}$ ; in the lake  $86^{\circ}$ ; in the air,  $120^{\circ}$ ; loss, 0.150; southwest wind blowing.

1714 Sept. 29th, 12:10 P. M. Water in the pan,  $78^{\circ}$ ; in the lake,  $78^{\circ}$ ; in the air,  $88^{\circ}$ ; loss, 0.180; north wind blowing.

Those are all the readings. Those were all made by myself and entered in the book at the time, and are all correct.

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#### Cross-examination of

L. L. DIXON.

1715 (By Mr. HOUGHTON.)—Those observations were made at the time and date I have given there.

Q—Did you keep a correct record of the time these observations were given?

A—I put it down by my watch.

Q—How far apart were those pans?

A—I don't know. I went out into the lake into deep water, where the water came up to my arms, to set the second pan. They varied from a quarter to half a mile apart—somewhere in that neighborhood. That is the distance, I should judge, across the water. I crossed



1716 from one to the other in a boat. The one in the centre was between a quarter and a half mile from shore. No measurement was made of the distance. There is nothing in the record to show how far from the shore that was.

Q—How much water was the other pan placed in, that is, how deep was the water?

A—The water came up to my arms.

Q—Did you say that you had a gauge there in the lake?

A—Yes, sir.

Q—What was indicated upon that gauge at the different times that you went there?

1717 A—I think I have the record marked in the book, I am not certain.

Mr. HAGGIN—I object to this examination: it is a matter entirely foreign to any questions I asked in the direct examination. I simply asked him about the notes of that book.

Objection sustained, plaintiffs except.

Q—How was this pan in the outer part or the centre of the lake placed? In the centre?

A—On stakes driven down. It was supported by stakes.

1718 Q—At what depth was it placed in the water?

A—It was placed down near the top of the pan.

Q—When were those stakes put in?

A—When I put the evaporating pan there.

Q—On the 13th of August, did those stakes remain there as you set them during all of the time?

A—I don't remember whether I did or not. When the water went down I certainly lowered the pan.

Q—Did you every time you went there, lower the pan?

A—Sometimes it was not necessary to lower it every time; sometimes I would.

1719 Q—How would you find the water in the pan, when you went there, in comparison with that on the outside?

A—In what way?

Q—When you set it on the 30th. Did you set the water in the pan on a level with the outside?

A—No, sir; it would be running over it.

Q—Was the water in the pan on a level with the outside?

A—No, sir, it could not be, because the pan would



1720 be sunk down. It would not evaporate at all, and the lake would just run over it.

Q—What portion of the pan did you leave out of the water?

A—I left sometimes an inch and a half,

Q—When you left an inch and a half, would you fill the pan up within an inch and a half of the top?

A—No, sir.

Q—So that the water would be at the same level inside as out?

A—No, sir; I filled it to the line drawn across the top of the pan. I filled it level with the top every time,  
1721 regardless of how deep it was sunk. I would never leave the pan out of water more than an inch and a half.

Q—Then how far would you find it out at any time, when you went there again?

A—I don't remember. I always kept it about the same, so that the water wouldn't run into it from the lake.

Q—Was not the water all of this time receding in the lake?

A—Yes, sir. When I went back to make the estimate on the 5th of September, I would find the water  
1722 lower than when I was there before. There would be more of the pan exposed. That would be so nearly all of the time. It was varying all of the time.

Q—Then you would settle those stakes every time?

A—Yes, sir, I did.

Q—But every time you would go back you would still find it falling?

A—I didn't go there many times, and I kept it down every time to about the same elevation. When I went there I changed it, but as the lake was falling every time I went, I would find the pan not so deep in the  
1723 water.

SAMUEL H. ANDERSON,

A witness for the defendants, being duly sworn, testified as follows:

I reside in Kern Co.; have lived here since the 14th January, 1871. I know the Calloway Canal and where it is located. I first knew about the canal a few days after Mr. Calloway came here with the intention of taking it out. That was in 1875; sometime in the fore



1724 part of May. I got acquainted with Mr. Calloway a short time after he came. I had a little talk with him. I had some talk with him about his canal or intention of taking the water out of the river. The first thing I saw of his canal was his notice there. I saw the notice posted. It was on a tree on the north bank of the river, just above the railroad bridge, immediately above the upper end of the island that forms the McCaffrey slough. It was on a black willow tree. I remember that the limbs were just away from it at the bottom, of where he had posted the notice. I saw the notice sometime in May, the fore part of May.

1725 Mr. HOUGHTON—This is subject to the same objection and exception.

The COURT—Certainly.

The WITNESS—About the 9th or 10th of May. The notice claimed the right to take water out of Kern River at that point, and in a certain amount. It was a large amount; I am not exactly certain about the amount. It was some 70,000 or 80,000 inches of water. Nothing else about it that I noticed except claiming that amount of water and the right to take the water out there, and mentioned the route that the ditch was to take. It was a northwesterly route to Tulare Lake. There were a  
 1726 number of names signed to it, but I don't recollect all of the names. I remember the names of Mr. Calloway and Mr. Burcham; I don't recollect the other names. There were a number of other names. There were two columns of names on the notice. The notice was posted on the north bank of Kern River, immediately above the railroad bridge; about 100 yards or so. I think the tree stands there now that the notice was on. The first work I noticed them doing on the Calloway canal was along in June, a little below the railroad bridge, in 1875. They were cutting the willows and grubbing, and seemed to be straightening that portion  
 1727 of the slough out. The name of that slough is the McCaffrey Slough. The force that I saw there was small; six or seven small teams. They were grubbing and hauling out grubs, a short distance below where the present bridge crosses. That was in June, 1875. I was down there several times that Summer. I was there in July. They were working further down, on the opposite side of the slough, grubbing and clearing out the brush. They had about the same force of men. I think there were some dump-scrapers there. I was



1728 down there once after that, one Sunday, and that is the only time I was there that year. I was down there on a canal where it leaves the main slough. There was no one working there, but I could see that work was being done. Tools were lying around, and evidences of actual work going on. I saw work done on it in 1876. It was very early in the Spring of 1876. There was quite a large force of men working there then. I think it was February. I was out there again in April and they seemed to have large 4-horse teams working there, and a large force of men at work on the canal. I was out there again in June, and there seemed to be

1729 about the same force at work there then. They were making progress. It was a considerable ride out there from Kern River. It must have been seven or eight miles, perhaps more.

They were away in the neighborhood of where the road turns off and goes about east to Sec. 19. I was not there again in 1876—not after June. I was out there in 1877; I think it was in May. They were then working four-horse teams there. There seemed to be a large force. They seemed to be several miles out further on the plains than they were in 1876. The canals they were constructing seemed to be something like

1730 100 feet wide on the bottom. They told me it was 100 feet wide. I don't know what the width was of the whole length. That was in May, 1877. I did not measure the canal myself. From my own judgment, looking at the canal, I think that 60 feet would come nearer to the size of it, from what I know about it, and what I know about it since I have seen it since. It was the same width in 1877 that it is now. I was out there in September, 1877; but not on the canal. I saw men at work there, but I was not in the immediate neighborhood of where they were working. It was June, 1876, that I was out there. I did work on the canal myself

1731 in the Spring of 1879; down this side of Poso Creek; about two miles this side of Poso Creek. We had a very big force then; I had twenty-eight four-horse scrapers and teams working there t athis time. We worked until we carried the canal across Poso Creek. We finished it in the fall of 1879. I saw water in the canal when I went to collect the road tax, in the Spring of 1876. I saw water in that canal in 1877. There was water running in the canal, but I could not tell how far. And in 1878; and also in 1879.



1732 Q—Do you know Old River?

A—I do. I have known Old River since I first came here in the Spring of 1871. I crossed Old River in March, 1871. There was considerable water in Old River when I crossed it then. I crossed at the Stine crossing. We had as much as we could do to get across on horseback. The water was well up on the banks for that time of the year. I saw it several times after that, and crossed it many times after that. I think I crossed it every year since I have been here. I could not exactly tell when. There was considerable water in 1872. I cannot tell exactly how much water

1733 there was. In 1873 there was considerable water running in it. I don't know the time in 1873 that I crossed it. I crossed New River the same day in 1871 that I crossed Old River. That was the only time I crossed the two rivers on the same day. There was then more water in Old River, and we had less trouble fording New River than Old River. I have seen the two rivers at about the same time, at different times, sufficient to form an idea of the relative volumes of water in the two rivers.

Q—What is your opinion as to the relative amounts of water in Old River compared with that in New  
1734 River in 1871, 1872, 1873, 1874?

A—Well, Kern River was running from the melting of the snow in the Spring, and the Old River carried the bulk or biggest volume of the water. But when there was a freshet or the flood in the river was greatest, New River seemed to carry a very large volume of water also. When Kern River was down and running a small amount of water, Old River seemed to take the biggest portion of it. And in time of flood, a big body would go down New River. In a stage of low water, Old River would carry the biggest body of water.  
1735 I think at one time I crossed New River when it was comparatively dry at Pioneer Bridge. I did not cross Old River at the same time, but I saw it a day or two previous to it, and there was considerable water in it. When I got to New River, it was nearly dry. I cannot say exactly what year that was. It was somewhere along in 1873. It was before the Summer of 1874. I think the Summer before.



1736

Cross-examination of

S. H. ANDERSON.

Mr. HOUGHTON—Q—Were you at the head of Old River in 1871, 1872, 1873, 1874?

A—I have been at the head of Old River very often during those years. I saw no wing-dam at the head of Old River during those years, to turn water into it. I never saw the wing-dam at the head of the river during those years. I saw a wing-dam to turn water into a  
1737 small ditch, below the river just a short distance—I cannot tell how far—two hundred feet. I cannot exactly tell when that was, but I think perhaps it was in 1873.

Q—Did you see it before 1873?

A—I don't remember; there were so many of those wing-dams and small willow islands in the river. It was hard to distinguish them. I saw the notice posted at the head of the Calloway ditch in 1875, in the fore part of May—the 9th or 10th.

Q—How are you able to fix the date?

A—I got acquainted with Mr. Calloway on the 1st of  
1738 May; and it was only a few days after that that I saw the notice there. He told me he was going to put it up. And besides, the land immediately adjoins my homestead. That is the way I fix the date. Mr. Calloway had only been here a few days before I saw that notice. The notice was posted on a piece of board, and posted to a black-willow tree. I don't think the main trunk was more than 10 or 15 feet high. I have seen that notice since. I saw what was left of it a year afterwards. I only recall the names of Mr. Bircham and Mr. Calloway as being signed to it. I  
1739 don't remember the other name. At one time I had charge of the work on the Calloway ditch. Mr. Broad had charge of it before I went there. I never was down on the Calloway Canal—on the canal in the latter part of 1875. I was not down there. But I know there was water running in the canal in 1875—it run down a little ways. No, sir; it was not in 1875, it was in 1876.

Q—After they ran water there into the canal, where did it run to?

A—To a piece of waste country, and formed a large



1740 lake on the plains. I saw no water in the canal in 1875. I was not there during the year 1875, after July.

Q—Did you go to the river at all after that time?

A—Yes, sir; I lived within 150 yards of Kern River for nine years.

Q—Were you not living near the Calloway in the latter part of 1875?

A—Yes, sir.

Q—Isn't it a fact that for four or five months during the latter part of 1875, no work was done on that canal at all?

1741 A—I always understood that they were working continuously. I don't know as a fact that for four or five months no work was done there.

Q—Don't you know as a fact that the Calloway stopped work for a long time before it passed into the hands of Haggin & Carr?

A—I know that Mr. Rob and Allen—I think that they were working there for some time, for I saw them working there; and from their own reports. I don't know anything about it beyond that. I don't know anything about the contract. I made no affidavit in connection with desert lands.

Q—Who are you at work for now?

1742 A—Haggin & Carr. I have worked for them something over two years, I think.

Q—Were you at work for them when you went to work on the Calloway?

A—I had charge of their work then, yes, sir.



1743 **Certificate of Counsel and Judge of Superior Court.**

The foregoing, (consisting of 436 pages) is a portion of the Bill of Exceptions on motion for a new trial and on appeal, being Volume No. 2 of said Bill, which said Bill of Exceptions consists of four volumes, and we hereby agree and certify that the foregoing portion of said Bill of Exceptions is true and correct.

July 28th 1882.

1744

*Jason Houghton*  
Att'ys for Plffs.

*Louis T. Haggie*  
Att'y for Def't.

The foregoing is one (No. 2) of four volumes comprising the Bill of Exceptions on motion for a new trial and on appeal, which said Bill is hereby allowed and approved as true and correct.

1745

July 31st 1882.

*B. Bondage,*  
Superior Judge.

*Endorsed;*

*Filed July, 31st. 1882,*

*Service of this volume (3) accepted by copy this day of August. A.D. 1882.*

*Louis T. Haggie*  
*Attorney for Respondent.*



1713 Certificate of Counsel and Judge of Super-  
ior Court.

The foregoing (consisting of 438 pages) is a portion  
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on appeal, being Volume No. 2 of said Bill, which said  
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hereby agree and certify that the foregoing portion of  
said Bill of Exceptions is true and correct.

1882

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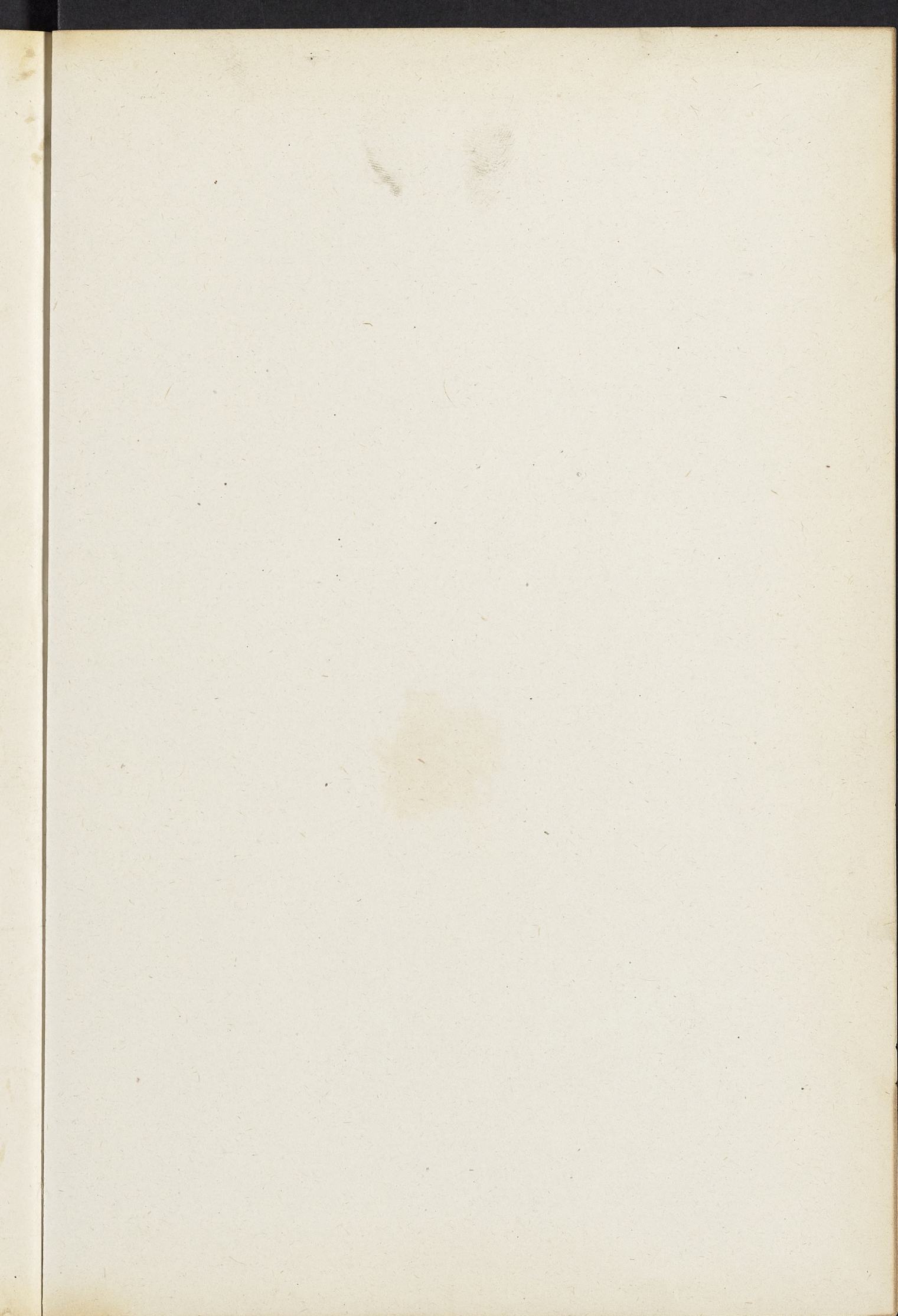
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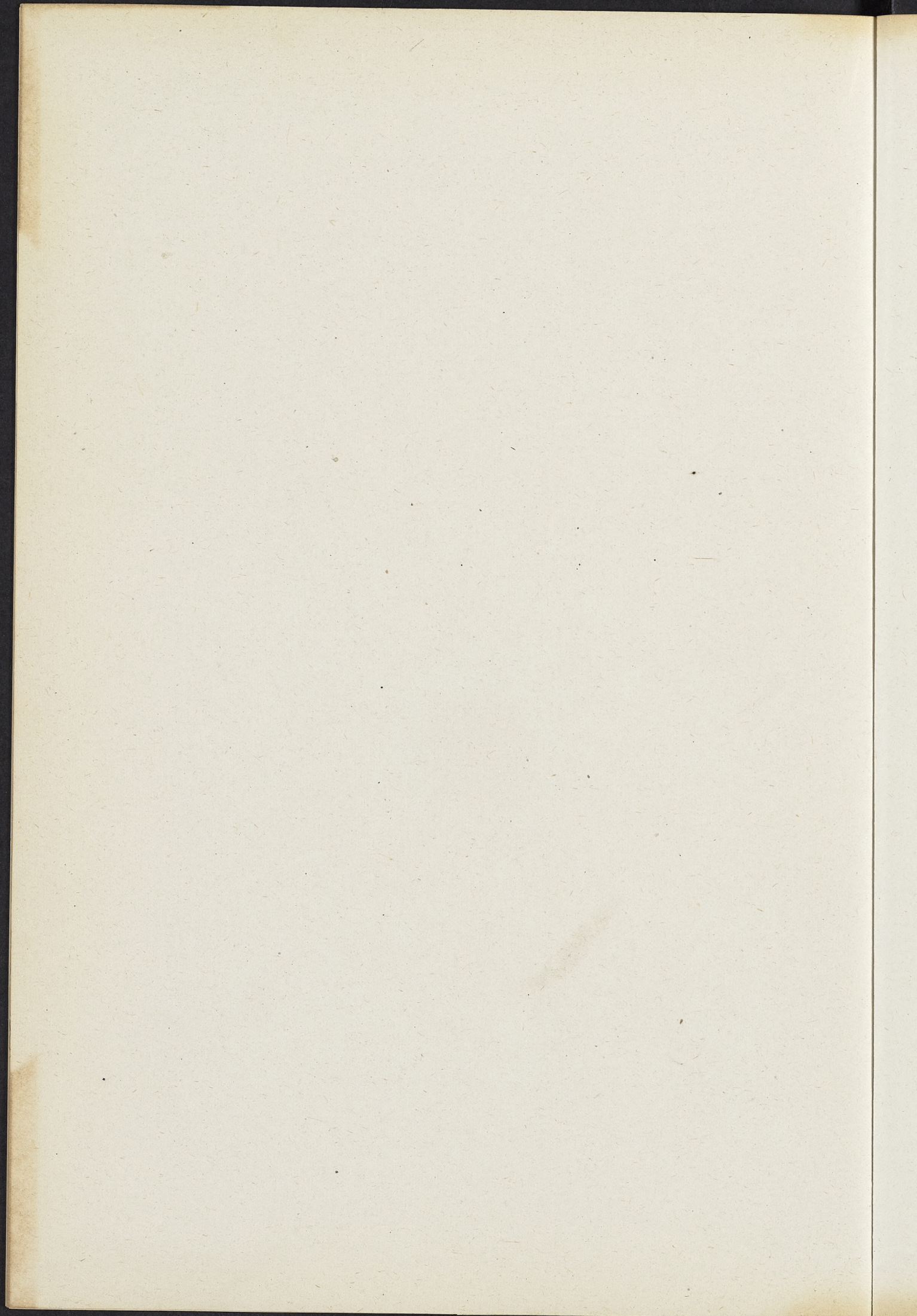
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trial and on appeal, which said Bill is hereby allowed  
and approved as true and correct.

Superior Judge

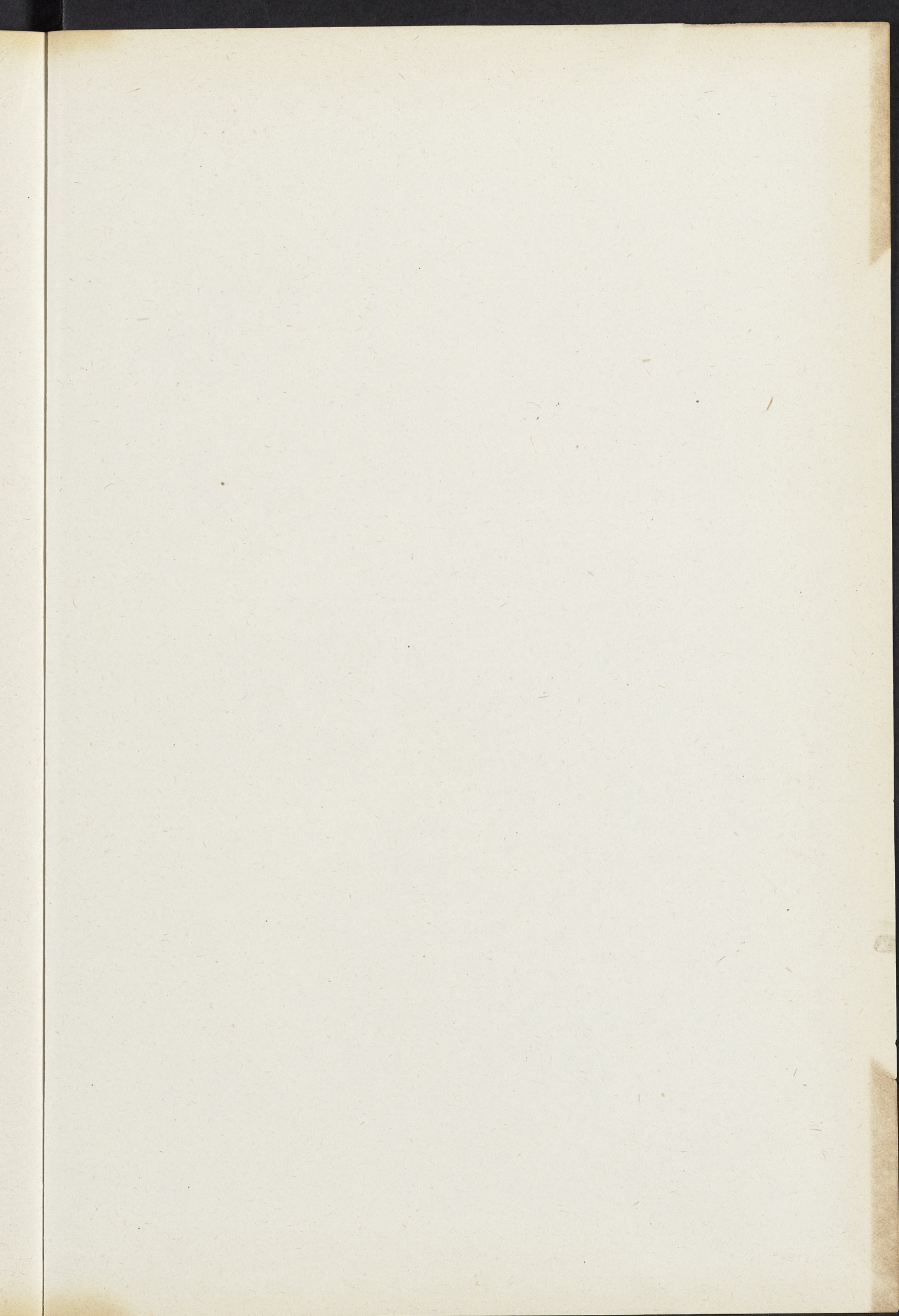








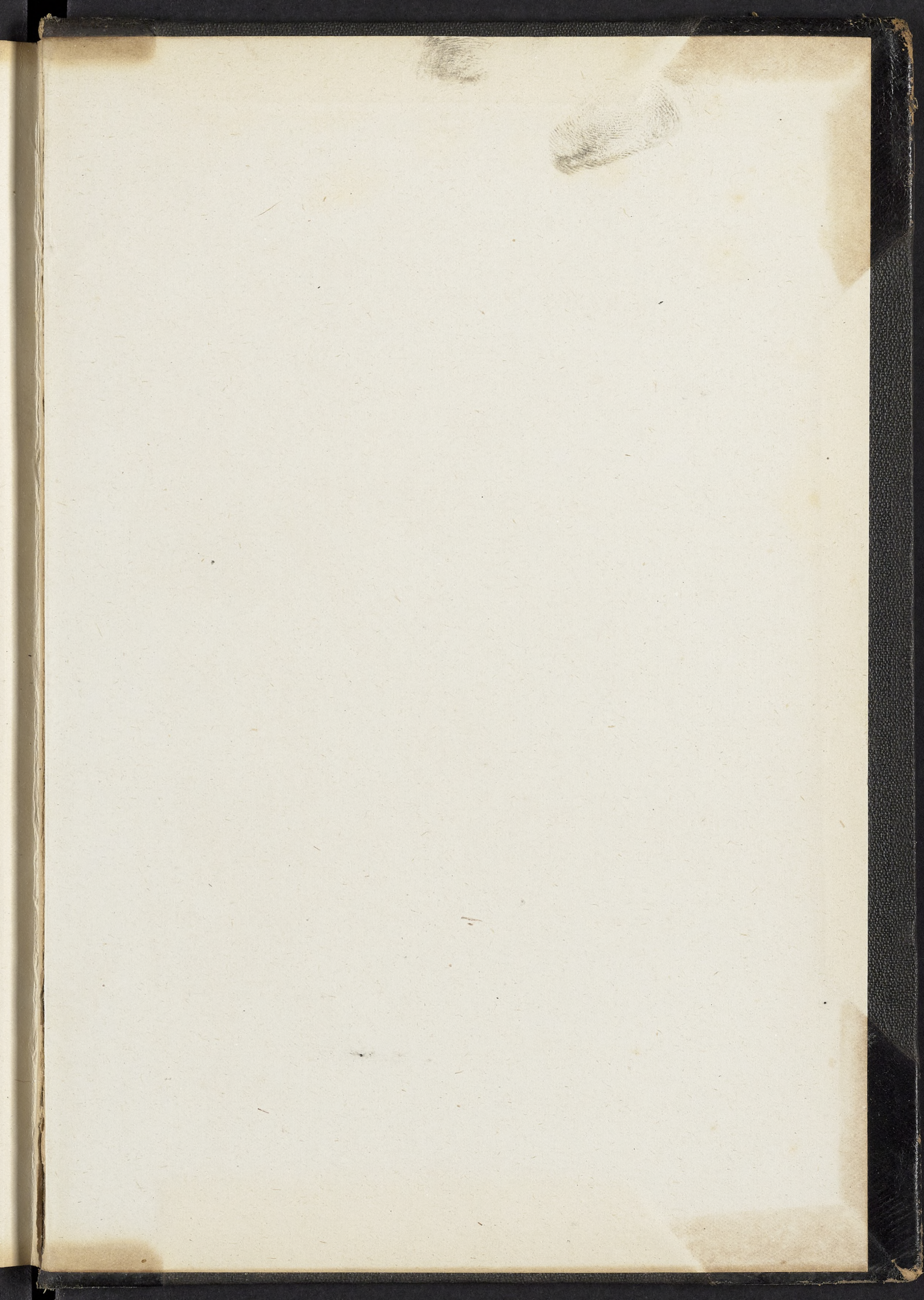




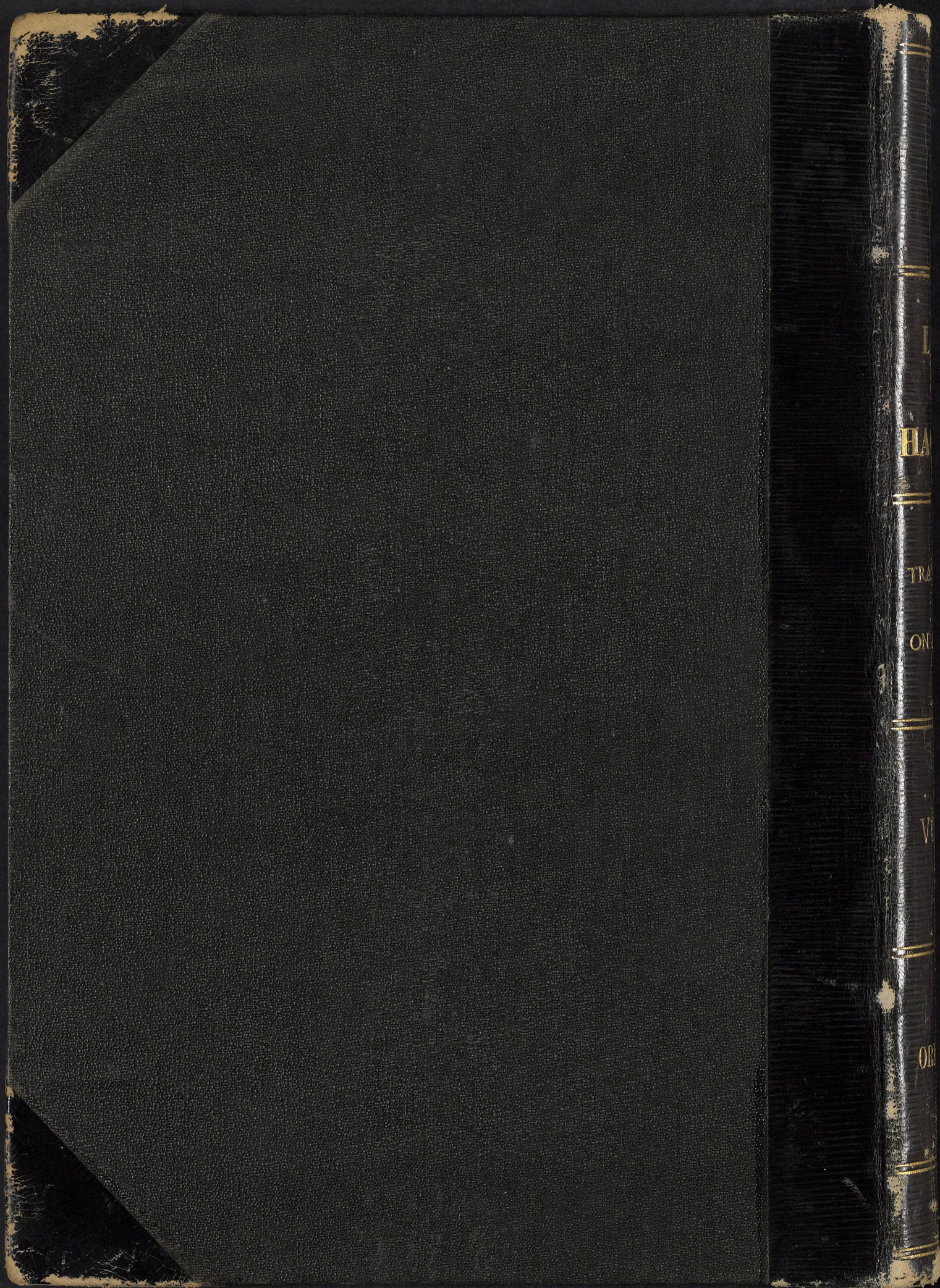












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